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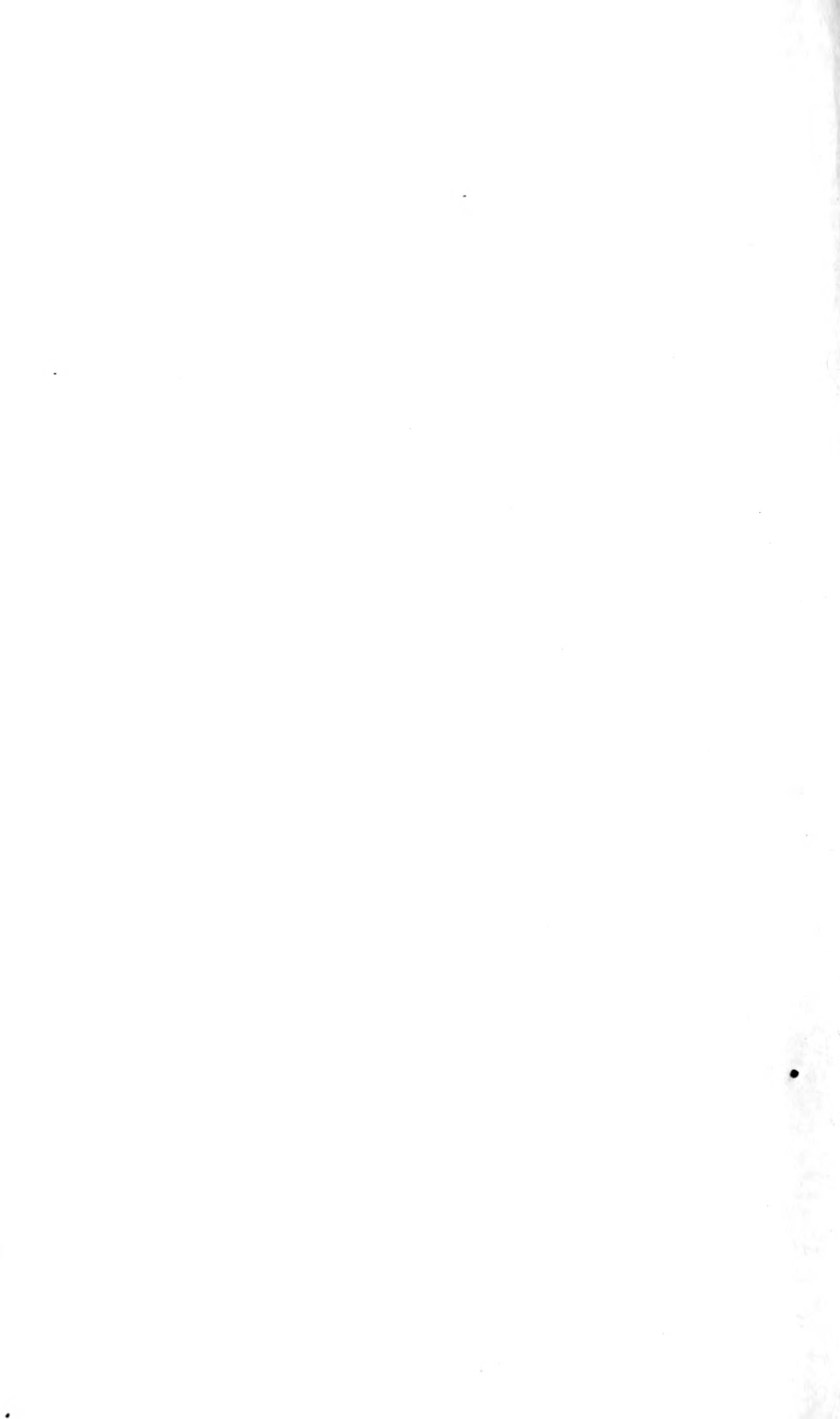
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ON THE TREATMENT OF THE SICK IN TENTS AND
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By EDWARD COWLES, M.D., of Boston.

Read before the Massachusetts Medical Society, June 3d, 1874.

THERE are very many instances upon record that furnish ample illustration of the truth of the assertion that temporary hospitals are the best ones. A few of them may be cited. It is related that, in 1755, some men-of-war carried out from England to North America a malignant jail-fever. The fever continued to spread while at sea, but at Halifax the sick "were lodged in tents, or in very old shattered houses that admitted the air very freely, which put a sudden and effectual stop to this disorder."

In 1758, says Sir Richard Brocklesby, a greater number of sick were landed out of transports on the Isle of Wight than could be contained in all the spare out-houses, barns and empty cottages that could be procured. A very rudely-built temporary shed of deal boards was constructed to hold 120 patients, and, though apparently inadequate to the end proposed, it was found that, notwithstanding much extraordinary cold and moisture, remarkably fewer died of the same disease than died anywhere else; and all the convalescents recovered much sooner than they did in the warmer and closer huts and barns, where fires and apparently better accommodations of every kind could be procured for them.

The instance is often quoted of the use of the abattoirs at Paris, during the invasion of France in 1814 and 1815, when the sick and wounded were put in these simply constructed buildings, which had neither doors nor windows, so that the wind blew directly through; yet the mortality in them was only one half of what it was in the hospitals.

The same facts were observed by the Prussians in 1812 and 1813, and Sir James McGregor fully recognized the immense importance of the distribution of the sick and wounded of the British Army in the Peninsular War. Sir John Pringle had a great and wholesome fear of general hospitals for the English service, and strenuously advocated the dispersion of the sick in small establishments.

Very many such instances may be found among the recorded observations of medical men of the past century, indicating that the educated opinion and experience of the profession has always been against the agglomeration of the sick in large numbers. In our own times, and within the personal knowledge of every one here present, there

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have undoubtedly been notable illustrations of the truth of this matter.

Since 1854, the sick of the Austrian army have been largely treated, during eight or nine months every year, in well-ventilated tents, in preference to field hospitals. The results were very satisfactory, and Dr. Krause reports that "the most severe maladies ran their course much more mildly in the free air, i. e. in tents, and recovered more perfectly and more quickly than in the confined space of hospitals." When, in following years, tents were kept open farther into the winter, it was noticed that when, by a sudden onset of cold weather, the temperature fell to the freezing point at night, the sick were in no degree damaged, and the men themselves, though severely ill, declined the offer to move from the tents into the hospital. In the experience of six years (1854 to 1860), typhoid fever, in its severe forms, was treated more successfully in tents than in the hospitals, the rate of mortality being 20·9 per cent. in the former and 30·5 per cent. in the latter. The most favorable results were observed also in cases of small-pox, pyæmia, hospital gangrene and wounds. When, in 1859, a number of wounded (789) were sent from Italy, there was no death among any of those treated in tents, where all the severe cases were sent. No case of pyæmia occurred in tents, and in no single case could it be made out that hospital gangrene originated there, though there were such cases in the wards of the hospital building. The story is well known of the terrible losses, in the Crimean war, of those treated in the large hospital at Scutari, with at one time 2,500 sick and wounded under its roof, of whom two in every five died, while there was afterwards not one half the mortality among those in the hospital tents, though badly fed and clothed and without proper medicines. The yearly death rate of 60 per cent. of the strength of the army, from disease alone, in the first seven months of the campaign, was reduced to a yearly average of $1\frac{1}{10}$ per cent. during the last five months. Wooden barrack hospitals were for the first time made use of on a large scale during that war.

At the beginning of the civil war in the United States of America, as had been the custom in emergencies in all previous wars of modern history, public buildings, schoolhouses, churches, hotels, factories, &c., were used as hospitals; but gradually one-story wooden pavilions, erected for the purpose, came into general use. It was prescribed, by orders of the War Department, that the pavilions should be 187 feet long, 24 feet wide and 14 feet high from floor to eaves. Two small rooms were partitioned off, at one end for bath-room and water-closet, and at the other end for medicine closet and nurses' room. The space remaining, 165 feet in length, was occupied by beds for thirty patients, and there were sixteen windows on each side of the pavilion. Ventilation was partially obtained by doors and windows, but principally, in summer, through an open ridge. In winter, the wards were each heated by four stoves, the pipe of which, passing upward through wooden shafts, formed ventilating flues for the extraction of foul air. Fresh air was introduced through air-boxes opening under the stoves. The floors, roof and walls were of a single thickness of boards, with the joints in the walls battened outside, and the roof made water-proof with some cheap material. The floors of the buildings were required to be at least eighteen inches above the ground, with an open and free passage for the air beneath.

The military hospital system was developed and perfected as has never before been done, and, at one time, in 1864, there were 202 general hospitals, with 136,894 patients in them. The average yearly mortality rate among the sick, of the whole period of the war, was less than 6 per cent. of the whole strength of the armies, a result obviously due to an excellent and efficient hospital organization.

Compare with this the annual mortality from disease of the British Army in the Crimea, which was 23.2 per cent. of its whole strength, and with that of the French Army, which was 30 per cent.

It is well known that great numbers of our sick and wounded were treated in tents in the field hospitals during the War of the Rebellion, and it was not the least important among the achievements of the Medical Department that it was proved beyond question that tents afford all necessary protection against unfavorable atmospheric influences, at least during all but the winter months, and that wooden barracks furnish entirely adequate protection and shelter all the year round in temperate climates. Dr. Hammond, in his treatise on Hygiene, says, in writing of the earlier years of the war, that "nothing is better for the sick and wounded, winter and summer, than a tent or ridge-ventilated hut. But in one instance that has come to my knowledge has hospital gangrene originated in a wooden pavilion hospital, and in no instance, so far as I am aware, in a tent."

The history of the Franco-German War, in relation to this subject, is exceedingly interesting, and an examination of the hospital system, in each of the two countries, give additional proof of the superiority of special temporary structures. Tent hospitals were not so much used as in the war in America, their proper management being, apparently, not understood. The American Ambulance, in Paris, attracted great attention, by its remarkable success and its demonstration that the objections believed to exist against tent-hospitals for winter service were not well founded. One of the earliest barrack hospitals to be erected as a result of American military experience was designed by Dr. Esse, and annexed to the Charity Hospital at Berlin, in 1867. It was only 84 feet in length, and contained 20 beds, but otherwise resembled the American pavilion, with the addition of a gallery, $4\frac{1}{2}$ feet wide, on each side, and a verandah at each end, and being constructed somewhat more substantially, with double walls and floor, as it was designed for use in winter, as well as summer. It was warmed by two stoves, and, by a peculiar and effectual method of ventilation, the foul air was drawn through the open space in the hollow walls and floor, and passed upward through pipes near the stove, escaping through the roof. The Germans afterwards built many barrack hospitals, differing chiefly from the American system, in use during the civil war, in being smaller, containing fewer beds, and being more hastily constructed. Many of them were so constructed that, in pleasant weather, the walls could be removed, and they could be thrown open on every side, with the galleries and verandahs screened and protected by canvas curtains.

The English model-hospital barrack is constructed with double walls, and is raised above the ground, for the free circulation of the air beneath. Great pains are taken to prevent the deposition and accumulation of organic matter in the cracks and joints of the woodwork. The inner walls are made of hard material, which can be washed, and the

floors are of hard wood, kept clean by waxing, with the joints filled with cement. Latterly paraffin has been used by being melted and poured upon the floors, and ironed in with a hot box-iron. It is also applied to the walls and furniture as a paint, dissolved in turpentine or paraffin oil. The recent experience of the English in the treatment of epidemic diseases in such hospitals is not less remarkable than the instances before quoted.

The plans for permanent military hospitals at army posts, adopted by the U. S. Government, carry out the essential principles of the barrack hospitals of the war. They provide for an administration building and attached pavilion, to hold from 12 to 24 beds each. They are to be built with double walls and quite substantial, but still are comparatively inexpensive. They are generally wooden structures, but sometimes they are built of brick upon the same plan. One of these brick hospitals may be seen at Fort Independence, Boston Harbor; it has a capacity of 24 beds and cost \$13,500.

Dr. Billings, in his Report on Barracks and Hospitals, in 1870, writes of the U. S. Army Hospitals then existing, "they are satisfactory in one respect, that they are almost all temporary hospitals. This I consider a decided advantage, as I believe that no hospital should be constructed with a view to its being used as such for more than fifteen years. If the money required to put up such structures as the New York Civil Hospitals, the Rhode Island Hospital or the Cincinnati Hospital, were divided in two equal parts, one-half being used to erect frame hospitals of the same capacity as the stone and brick hospitals actually built, and the other half being put out at interest at 6 per cent., a complete new hospital could be furnished every twelve years, for an indefinite period to come."

Many objections are generally believed to exist against the use of tent and barrack hospitals—that they furnish inadequate shelter, are wet and cold, and cannot be properly warmed in bad weather, that the ground around and beneath them will become infected, &c. These objections must be considered as proved to be quite unfounded, by the very extensive and successful use that has been made of such hospitals. Proper management will overcome all these difficulties. The tent wards which you have seen at the Boston City Hospital have rendered most satisfactory service in the past two years. They were in use during only about four or five months in each year, between May and October. They are constructed of U. S. Army hospital tents, which are 14 feet in length, 15 feet in width, 11 feet in height at the centre, with a wall 4 feet 6 inches, and a fly of appropriate size. The tents now in use have the two latter dimensions increased, being 12 feet high at the centre, and having walls 5 feet high. They are made of 10-oz. cotton duck, and, with poles, cords and pegs complete, can be bought for less than \$100 each. Tents of this size will hold very comfortably six beds each. At the City Hospital, the tent-wards have been constructed in the following manner: A floor of planed and matched boards, 37 feet long and 15 feet wide, is laid so as to be about 18 inches above the ground, and supported upon blocks at many points to give it firmness. A light and strong frame, just fitting the inside of a tent, is put up at each end of this floor, leaving a space of 9 feet in length in the centre between the tents. Two tents are then put upon the frames, and a narrow board placed between them to com-

plete the ridge of the structure. A little fly is then spread over each tent and fastened on each side by its cords to a rail on a level with the eaves of the tent, and about two feet distant from it. Below these rails and near the ground are others to which the cords from the eaves of the tents are attached. A third fly is then spread and fastened to the rails on each side to form an awning over the open space between the tents. In this space are placed a table, chairs, refrigerator, &c. The walls of the tents can be raised on all sides and looped up in pleasant weather, so as to form an awning of the whole, or they can be closely fastened down to keep out the rain and wind. During the last two seasons, 50 patients have been treated in these tent-wards with the most gratifying results.

The U. S. Army hospital tent has at one end a lapel, so that two or more tents being joined and thrown into one a tent pavilion is formed, with a continuous covering or roof. In the field hospitals, during the war, it was customary to unite four or six tents together in each pavilion, and it was found to be an arrangement that was convenient and advantageous in many ways.

Many different forms of hospital tents have been devised in other countries, but none seem to have rendered any more satisfactory service than those just described.

The heating of tents properly has been regarded as a matter of some difficulty. This has been accomplished quite satisfactorily, however, by the use of fireplaces, sheet-iron stoves, and by a plan called the "California stove." In this plan a small excavation is made in the ground, either within or just outside of the tents, and the fire being built in this excavation, the smoke and heat is carried along a covered trench, which passes under the floor of the tents into an upright flue, outside and beyond the tent wall. The tents are thus warmed through the ground or floor. This method was perfected and very successfully employed in the American Ambulance in Paris, in the winter of 1870 and '71.

An important consideration that must never be forgotten is that perfect cleanliness must be maintained around and about such temporary hospitals. The ground about them should be thoroughly drained, and the surface replaced from time to time. Frequent and systematic policing must be enforced, and the location of tents must be changed, if long in use. The importance of this matter is generally overlooked, and the inattention to these very requirements at many of our popular summer resorts in the country, as at the seaside, has caused so much serious and fatal disease as to attract the general attention of physicians.

In the light of such experiences as have been set forth, it must readily be seen how easy and simple a thing it is to provide good hospital accommodations, in any emergency, no matter how sudden and unexpected, that the prevalence of epidemic and infectious diseases may occasion. In England such emergencies are now anticipated and preparation is made for them. Dr. Parkes says that "within the last few years it has become customary for all towns of any size to put up some temporary hospitals during an outbreak of cholera, smallpox, relapsing fever and typhus, and to remove persons ill with these diseases at once from their dwellings." Under the provisions of the Sanitary Act of 1866, the Medical Department of the Privy Council

points out in relation to providing "hospitals or temporary places for the reception of the sick," "that villages should have the means of accommodating instantly four cases of infectious disease, in at least two separate rooms, and it is considered that a good cottage would answer the purpose." "For temporary emergencies, tents are recommended or huts are advised." If tents cannot be procured or practically used, a hastily built barrack hospital of boards may, in a few days, be prepared. And not only this, but it will be one that will sufficiently shelter the sick, and will not be surpassed in its healing influences by the finest structure in the land. Every large town may have a well-built, wooden, pavilion hospital, which will fulfil all the requirements of a hospital, and still be cheaply built and supported. The principles upon which a hospital should be constructed cannot be better set forth than in the rules given by Dr. Parkes.

1. The sick should be distributed over as large an area as possible, and each sick man should be as far removed as possible from his neighbor.

2. The sick should be placed in small detached and perfectly ventilated buildings, so that there is no great number of persons in one building, and there shall be no possibility of the polluted air of one ward passing into another.

When we are called upon to devise a plan for a hospital, the prime object that should always be held in view is that it is for the healing of the sick. As far as its construction is concerned, we are to provide for the sick the *best permanent shelter*, and one that may be convenient for administration. Nothing more is needed, and when we begin to attach importance to other considerations, we begin to lose sight of and obstruct the attainment of our prime object. An infinite number of invincible proofs can be cited as positive evidence that temporary hospitals are the best. The reason why they are the best is simply because in them, better than in any others, we get pure air. Dr. Frank Hamilton says, "other things being equal, the best place to treat a sick or wounded man is, always, where he can get the most and the purest air." Florence Nightingale has comprehensively stated the whole matter in the first words of her "*Notes on Hospitals*," in which she says, "it may seem a strange principle to enunciate as the very first requirement of a hospital, that it shall do the sick no harm." These propositions may be taken as the axioms of hospital construction, and would undoubtedly be accepted as such by all who would build hospitals, from those who would treat the sick only in temporary and destructible huts and barracks, to those who would construct architectural monuments of their philanthropy. But when we come to inquire *how* we shall best provide the proper conditions for the treatment of the sick, give them abundance of pure air, and surround them with all the influences that can contribute to their recovery, then the difficulties begin, and the architects and the physicians are apt to disagree.

The lamentable errors of the past, in the histories of great hospitals, with their crowded wards and terrible mortality, furnish instructive lessons, and warn us to seek to avoid the evils of the old hospital system, of which the old Hôtel Dieu of Paris and St. Thomas of London, in the last century, are examples. We have the same evils in the hospitals of our own day, and do not need to go beyond the large cities of

our own country for such examples. Even at so late a period as that of the Crimean war, the old system prevailed, and the disastrous events of that war may be said to be the starting point from which followed the great changes wrought by modern hospital reform. The extraordinary results that have been obtained in the treatment of the sick and wounded, in temporary hospitals, have given forcible demonstration of the superiority of tents and barracks over hospitals of complicated construction. The rapid advances that have been made in modern times in all departments of scientific knowledge, the better understanding of the true nature of disease and the influences that propagate and control it, have contributed largely to the progress of hospital reform.

A startling array of facts has been brought to light in regard to the bad management and high rate of mortality of the great hospitals of the past and of those still existing. Such facts point to an unmistakable and inevitable conclusion. It is declared by Dr. Simpson, Dr. Kennedy and others who have most thoroughly investigated this subject, that a great portion of the high rates of mortality is preventible, and due to defects in the construction of hospital buildings, and that, as the well are made sick by "crowd-poisoning," so the sick, placed under the same influences, are surely hurried on to their death. The names "hospitalism" and "hospital influence" are given to these evil conditions, and it is declared that there are hospital diseases which have their origin *in the hospital*, that they generate therein an epidemic poison which, by its "*cumulation* and saturation," pervades the building, and surely kills many of the sick who come within its walls, who could get well elsewhere.

It is not intended, in this paper, to discuss in detail the progress of modern hospital reform. The whole subject is clearly and ably reviewed by Dr. Derby in the "Report of the State Board of Health of Massachusetts," for 1874, recently published. The summing up of the whole matter in relation to the evils of "hospitalism" and "hospital influence" is, that the old system of hospital construction is bad and utterly to be condemned.

Many new hospitals have been built in the last twenty years, in which principles enunciated by the advocates of hospital reform have been partially carried out. In all permanent hospitals, however, the plan has almost invariably been to build pavilions three or four stories in height, and not the pavilions of one story each. As an example of these, and one of the first to be erected in this country, is the Boston City Hospital, which was first occupied ten years ago. It was then considered to be quite perfect in its general plan—that of detached buildings, &c.—and was copied in other cities. Not less than five or six civil hospitals, upon essentially the same plan, have been constructed in New York city alone during the last few years. Other examples are the celebrated Lariboisière Hospital of Paris, the new St. Thomas of London, and many more; but though a great advance upon the old hospitals, these and many others have now been long enough in use to have shown that many of the grave evils still exist in them which it was sought to avoid.

The great desideratum of the sick, pure air, is not obtained in them. All systems of supplying it in needed quantities, in hospital buildings of more than one story, have failed. The elaboration, complication

and expensiveness of all the artificial systems of ventilating hospitals condemn them, making them difficult to manage, or practically unmanageable, and altogether unsatisfactory. One of the most elaborate systems of ventilation that has been developed by modern science and skill is that of the famous Lariboisière Hospital. In relation to this hospital, Dr. Evans, in his recent "History of the American Ambulance," quotes the words of a celebrated French surgeon as follows:—"Of all the Parisian hospitals, the best arranged, the one which has been constructed with the greatest care, according to all the rules of science, is the hospital Lariboisière, and the mortality there is frightful. In other words, it is a *great* hospital. It is vain to ventilate; the miasms penetrate the floors, incrust the walls, dance in the air which is breathed, and transform in a twinkling an illness of little consequence into a mortal malady." *From one, know all.* If our best modern hospitals do not stand the test of experience, do not give us the results we can surely get in other ways, what are we to infer, and what is the mistake in them? The money invested in them makes large and satisfying returns, in the admiration their noble proportions excite. The good done in them is great and not to be despised. But something more is demanded—simply that "*they shall do the sick no harm,*" that the rate of mortality in them shall be no higher than in tents, barracks and sheds, the use of which emergencies have sometimes compelled. We know now that in these last-named structures, and by the segregation of the sick and wounded, we can get a lower rate of mortality than we would dare expect in any of our modern permanent three or four story hospitals. The truth, then, is, that the nearer we approach to simplicity of construction, the better are the results and the more sick get well; and the mistake is, that most modern hospitals have been only an architectural compromise between the old system and the new one of the future.

We may soon find that the hospitals of to-day are to be regarded as only an approximation towards sound and enlightened principles, and that any small town or village can have, within forty-eight hours, by erecting one of these tents or board barracks, as good, or rather, as we have shown, a better receptacle for the sick than hitherto has been attained in the largest and richest cities. It is safe to predict that the hospital of the future will give no inferior results to those we know have been obtained in temporary structures; and till as good results have been obtained in other ways, it is fair to regard the temporary as the best hospital.

It will be wise for us, then, to leave to their fitting use such buildings, with their architectural adornments, as our churches, court houses and government halls, and build for our sick what they need and what is best for them, what is within our means, and what we go without in our towns and villages, to the propagation of epidemic and infectious disease. It will be wise for us to seek rather to heal our sick than to build enduring and costly structures that may be the pride of their projectors and the monuments of their philanthropic zeal, but of which it has been predicted (by Dr. Derby) that "they will, in the future, be regarded as the monuments of those who needlessly died within their walls."

Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By EDWARD S. WOOD, M.D.

Analysis of Human Bile.—By OSCAR JACOBSEN. (*Berliner d. deut. Chem. Gesellschaft*, 73, No. 14.)

The bile analyzed was obtained from a biliary fistula in a healthy man. It was clear, of a greenish yellow color, neutral reaction to test paper, and had a specific gravity of from 1.0105 to 1.0107 at 17.5° C. On evaporation, it left 2.24 to 2.28 per cent. of solid residue. During the first few days, it contained traces of albumen and leucin. No grape sugar nor urea were detected. Bilirubin and biliverdin were always present.

The solid residue left, after ignition, 37.62 per cent. of ash, the analysis of which gave the following result:—

	Per cent. of ash.	Per cent. of dried bile.
Chloride of potassium - - - -	3.39	1.276
“ “ sodium - - - -	65.16	24.508
Carbonate of “ - - - -	11.11	4.180
Phosphate “ “ - - - -	15.90	5.984
“ “ calcium - - - -	4.44	1.672
	100.00	37.620

Besides the above constituents, were found traces of silica, iron, magnesia, and, in every analysis, copper. The last was found in that portion of the bile which was insoluble in alcohol. Further analysis gave the following results:—3.14 per cent. of the dried bile dissolved in ether, and consisted of—

Cholesterin - - - -	2.49
Unsapoified fat, with a little oleate of sodium - - - -	0.44
Leithin - - - -	0.21
Portion soluble in ether - - - -	3.14
Portion insoluble in alcohol and ether - - - -	10.00
Alcoholic extract—glycocholate of sodium - - - -	44.8
Palmitate and stearate of sodium - - - -	6.4
Per cent. of dried bile - - - -	64.34

In this bile, no trace of taurocholic acid could be detected. In a series of analyses of bile, taken from the gall-bladder after death, sulphur constituted from 0.21 to 0.925 per cent. of dried bile in nine specimens, and 2.67 per cent. in a tenth specimen. In three of these, the sulphur was entirely in the form of sulphuric acid. In another series of analyses, the author found an average of 14.2 per cent. of taurocholate of sodium. Hence, in human bile, taurocholic acid may be wanting completely, but glycocholic acid is always present in greater or less quantity.

Estimation of Albumen.—By GIRGENSHON. (*Jour. de Chim. Méd.*, January, 1874, from *Neues Rep. f. Pharm.*, 1873, p. 553.)

This is done by precipitation of the albumen with tannin in the following way. Add to the liquid to be tested one half of its volume of a 20 per cent. solution of common salt, and then a solution of tannin in excess. Collect the precipitate on a weighed filter, wash first with

water, in order to remove all of the salt, and then with boiling alcohol until the filtered alcohol contains no more tannin, dry the precipitate and weigh. The weight of the filter and precipitate, minus the weight of the filter paper, equals the weight of the albumen in the amount of fluid taken.

The author concludes as follows :—"The albumen contained in the urine of nephritis differs from that found in urine in cases of accidental albuminuria. The tannin compound of the former contains 37 per cent. of tannin, while that of the latter contains about 20 per cent." The albumen of the blood serum re-acts with tannin in the same way as that of nephritic urine.

Action of Chloral Hydrate on Albuminoid Matters.—By M. PERSONNE. (*Jour. de Chim. Méd.*, March, 1874.)

The results of the author's experiments are as follows :—

Fresh blood treated with a solution of chloral hydrate, and kept at the ordinary temperature, coagulates completely ; it preserves its red color, and is not altered by a temperature of 25° to 28° C. So coagulated, it yields nothing to water.

Defibrinated blood is also coagulated by chloral hydrate, but the coagulum thus obtained, if treated with water, gives up a substance which has a brownish-red color.

If a piece of muscle be introduced into a 10 per cent. solution of chloral hydrate, it becomes a little paler, a reddish liquid exudes, which soon deposits a brick-red sediment. If withdrawn after a few hours' immersion, and kept at 15° to 20° C., it dries quickly, becomes brighter in color, and can be pulverized readily. It does not putrefy. The powder consists of a compound of albumen with chloral, soluble in an excess of either albumen or chloral.

By means of a 10 per cent. solution of chloral hydrate, M. Personne was enabled to preserve animals for several months without decomposition, and, if the solution contains one half its volume of glycerine, the tissues do not become dry, but retain their original flexibility. By this action, Personne explains the longer duration of the effects of chloral over those of chloroform, he being an advocate of Liebreich's theory of the physiological action of chloral, viz., that it acts by being decomposed by the alkalies in the blood into chloroform and formic acid. He states that the first action of the chloral hydrate upon the albuminoid matters which it meets with in the system, produces chloroform by means of the alkali of these albuminoid matters. At the same time, these deprived of alkali combine with the undecomposed chloral, this compound forming a sort of reservoir of chloroform, only yielding it gradually as the circulation destroys the compound formed. This also explains why only a very small quantity of chloroform can be found in the blood of animals killed with chloral hydrate.

Test Paper for Urea.—By M. MUSCULUS. (*Comptes Rendus*, 78, p. 132.)

This paper is prepared by filtering urine, which has undergone alkaline fermentation, through filter paper, washing and drying the paper at 35° to 40° C. The globules of the penicillium glaucum, which cause the decomposition of the urea into carbonate of ammonium, remain attached to the filter, and their activity can be restored by placing the paper in water. After filtering, washing and drying as above mentioned, the paper is colored with turmeric, dried again, and kept for.

use in a dry bottle. So prepared, it forms a most delicate test for urea. If a piece be dipped in a solution of urea, which contains only one part in ten thousand, it will soon become of a dark-brown color, owing to the action of the carbonate of ammonium formed upon the turmeric, while a piece of ordinary turmeric paper will remain unchanged.

In testing a liquid for urea, it must first be neutralized, and the test paper inserted. Carbolic acid, even to super-saturation, does not prevent the ferment from acting. Albuminoid matters are not acted upon by this ferment; i. e., they produce no alkaline reaction in the time required to form urea into carbonate of ammonium. Uric acid is also unchanged by it.

A quantitative estimation of urea can be made by placing the fluid in a flask, adding a little tincture of litmus and then the test paper. Dilute sulphuric acid is then added until the litmus is reddened, and the whole left for five or six hours at a temperature of 25° to 30° C. The ammonia formed can then be estimated by a standard acid solution.

The detection and estimation of very small quantities of urea in well-waters suspected of contamination by infiltration from water-closets, &c., may be easily and quickly made with this paper.

Indican in the Urine in Addison's Disease.—(*Jour. de Chim. Méd.*, April, 1874.)

The urine of two patients, aged respectively 60 and 72 years, suffering with Addison's disease, was analyzed for many days by Rosenstein. The amount of urea was diminished, it never exceeding twenty grammes in the twenty-four hours, and sometimes falling as low as thirteen grammes. The most notable feature, however, was the increase of indican (uroxanthin). The amount of indigo found (by Jaffé's method) varied from 0.0645 grammes to 0.0753 grammes in 1000 cubic centimetres of urine, i. e., ten or twelve times the normal amount.

The Influence of Sulphates in the production of Goitre.—By M. BERGERET. (*Jour. de Pharm. et de Chim.*, January, 1874.)

M. Bergeret attributes the production of goitre to the presence of sulphates in the system. These may get into the blood either by drinking water which contains a large amount of gypsum (sulphate of calcium), or by the increased metamorphosis of muscular tissue. In one case cited to prove this, nearly all the inhabitants of a town, which was supplied with drinking-water largely impregnated with gypsum, were affected with goitre until the water supply was changed, when the disease ceased to be produced.

Analysis of the urine of a very large number of persons affected with goitre, showed that the amount of sulphuric acid in the urine was increased from two to four times the normal amount.

To detect Quinia in the Urine.—Dr. Vitali (*Jour. de Chim. Méd.*, May, 1874) gives the following process, which requires but a small amount of urine.

Add to eight or ten cubic centimetres of the urine to be examined five or six cubic centimetres of ether, and to this mixture eight or ten drops of ammonia water or sodic hydrate, and shake. After the separation of the ether, decant it into a capsule with one drop of dilute hydrochloric acid, and evaporate it by a very gentle heat. After cool-

ing, add a few drops of chlorine water, mix with a glass rod, and then add a drop of ammonia water. If the urine contains 0.05 grammes of quinia to the litre, the characteristic green color will be produced.

Potable Water.—The following, according to Dr. F. Fischer (*Jour. für Pract. Chemie*, ii. viii. 123–126), are the characteristics of good drinking-water:—

1. It should be clear, and without taste or smell.
2. The temperature should vary at different periods of the year only within narrow limits (6° to 12° C.).
3. It should contain very little organic matter and no organisms, such as bacteria, eggs of entozoa, &c.
4. It should be free from ammonia and nitrous acid, and contain no large quantity of sulphates, nitrates and chlorides.
5. It should not be too hard, and should not contain a large amount of the salts of magnesium.

One litre of water of the above kind would contain, at most, of—

Organic matter, 40 milligrammes.

Chlorine, one equivalent in milligrammes (= 35.5 milligrammes).

Nitric acid, 0.6 equivalents in milligrammes.

Sulphuric acid, two equivalents in milligrammes.

Magnesium, two equivalents in milligrammes.

Calcium, four equivalents in milligrammes.

Degree of hardness = 16.8 (German scale).

(To be concluded.)

LAW OF MISSOURI CONCERNING THE PRACTICE OF MEDICINE.—We furnish below a synopsis of the law passed at the last session of the Legislature of Missouri in relation to the practice of medicine and surgery in this State, approved March 27, 1874.

1. It is made unlawful for any person to practise medicine or surgery in this State, who shall not have first received the degree of doctor of medicine from some medical college or university duly established under and by virtue of the laws of the State or County in which the same is situated.

2. Every person wishing to commence the practice of medicine or surgery in this State is required to file a copy of his diploma in the office of the County Clerk of the County in which he resides, to be sworn to and subscribed by the party filing the same, and thereupon the County Clerk registers the diploma, for which a fee must be paid.

3. Persons practising, or who shall commence to practise, before the first of September, 1874, shall register without diplomas.

4. The penalty for non-compliance with the act, upon conviction, is fixed at not less than twenty-five nor more than five hundred dollars; and the fact that such person has not filed his diploma is a sufficient defence in any action which he may bring to recover his fees for professional services.—*St. Louis Medical and Surgical Journal*.

UNION OF TWO KIDNEYS IN ONE.—At a recent meeting of the *Société des Conférences Anatomiques*, of Lyons, M. Odin displayed a kidney twice the normal size, removed from a fœtus born at full term. The organ was found lying immediately in front of the vertebral column, at the usual height, and had the form of a crescent with the horns directed downwards. The supra-renal capsules were excessively developed, but the ureters were of normal size.—*Lyons Médical*.

Bibliographical Notices.

History of the American Ambulance in Paris during the Siege of 1870-1871.

By T. W. EVANS, M.D., D.D.S., &c. London: Sampson, Low, Marston, Low and Searle. 1873. 4to. Pp. 694. From Wm. Wood & Co., New York.

THIS magnificent volume, beautifully and ornately printed upon tinted paper, with numerous wood-cuts, plates and diagrams, offers much more than its title seems to promise, since the first 444 pages must be perused, or turned over, at the option of the reader, before the subject of the American Ambulance is entered upon. The matter is arranged in the form of voluminous reports addressed by members of the Ambulance to their President, Dr. T. W. Evans, whose philanthropic labors in the cause of sanitary science and of humanity on the battlefield are well known. The first chapters are mainly devoted to an exceedingly long and laboriously erudite dissertation upon army hospitals and tents, by Dr. Crane, the Secretary and chief organizer of the Ambulance. In these exhaustive and somewhat exhausting essays, much valuable information is given, accompanied by an unnecessary amount of research upon subjects which can only interest us under their most modern and practical aspect. We will pass at once to the portion of the work which appears to us to be really valuable and instructive, namely, a chapter entitled "The Special Organization of the American Ambulance," by Dr. Crane, and the surgical report of Dr. John Swinburne, surgeon-in-chief.

Dr. Crane's very complete description of the organization and installation of the Ambulance is highly interesting, as exemplifying the successful use of tents during the coldest months of an unusually severe winter. The tent which was used was the United States regulation hospital tent, made of 14 oz. duck; ten such tents, capable of containing five or six beds each, were sent for to this country, and reached Paris soon after the opening of hostilities. Besides these tents, which constituted the most interesting feature of the American Ambulance; barracks were erected, and a house in the neighborhood was loaned to Dr. Evans, so that the total number of beds was raised to 150. The situation of the ambulance, though defective in some respects, was in the main very favorable; the tents occupied an empty lot near the Bois de Boulogne, quite away from the city proper, so that they might be said to have the advantage of country air.

The tents were all floored, and were arranged by Dr. Crane so as to form two long pavilions, each formed by joining together, end to end, five tents; each pavilion then contained from twenty-five to thirty beds. An important problem was how to warm the pavilions in a thorough manner, and at the same time economically, fuel being very scarce in Paris during the siege. A great objection to the use of tents has always been the difficulty of keeping them warm in very cold weather. This end was admirably accomplished by means of a very simple and ingenious contrivance known as the "*California stove*," with the use of which Dr. Crane had become acquainted during the war with the South. It consists in an underground stove, which is buried in a pit below the lower end of the pavilion, outside of the terminal tent; a shallow trench is dug in the ground under the flooring of the tents, and runs longitudinally in the median line from one end of the pavilion to the other; in this trench, lies horizontally a long smoke-stack, which emerges vertically, outside the furthest terminal tent, to a height of about ten feet. The heat generated in the stove is thus transmitted by the long horizontal pipe, through the flooring of the entire series of tents, and serves not only to thoroughly warm and ventilate the tents, but also to warm and dry the ground beneath. This means of warming tents is little known and practised, even in this country, where it originated; it proved very efficient in Paris, as the writer of this review can testify from personal experience, and, indeed, it may almost be said to have constituted the whole secret of the success ob-

tained by the tent hospital. During the siege, the writer frequently visited the various ambulances, situated in public and private buildings, as well as in temporary wooden barracks, and in the coldest weather the temperature would always be as low as 34° or 36° Fahr., when in the American tent-hospital it was ranging between 55° and 65° , and this degree of warmth was maintained through the coldest days of the winter. Thus, instead of proving inferior in this respect to ordinary buildings and barracks, the tent-hospital, thanks to the California stove, really afforded a shelter for the wounded which was more easily and thoroughly warmed than any other.

Dr. Crane, after reviewing the history of tent-hospitals, says:—"I feel confident that the facts and opinions, both European and American, which I have presented, will convince you that in proposing to establish an ambulance under the cover of canvas, not simply as a temporary, but, if necessary, as a permanent installation, we acted almost, if not entirely, without precedent."

Not only did the tent hospital prove by far the most successful in practice, compared with all the other forms of shelter which were improvised to meet the extraordinary requirements growing out of the military operations around Paris, but it presented the great additional advantage of economy. Dr. Crane calculates that the maximum expense incurred in the establishment of an ambulance of fifty beds, under such tents as were employed in Paris, would be about 125 francs for each bed. Various barrack hospitals were erected in and around Paris, of which the cost ranged between 1,000 francs (Passy) and 1300 francs (St. Cloud) for each bed.

Turning to Dr. Swinburne's "Surgical History of the American Ambulance," we find a full *exposé* of the results obtained by means of the resources placed at his disposal by the committee.

Dr. Swinburne's treatment of wounds was generally as follows:—After the removal of all foreign matter from the wound, including such fragments of bone only as might have been detached from the periosteum, the wounds were dressed with compresses dipped in warm water, and covered with some impermeable material. These simple open dressings were changed once or twice daily; dilute solutions of carbolic acid, dilute alcohol, nitric acid (gtt. 60 to aq. Oi.) &c., were used to disinfect or stimulate wounds; oakum was largely employed to support wounded parts and to absorb discharges. Thus, it will be seen that the treatment was of a very simple kind, presenting no unusual or novel features, and that whatever success was obtained was due to the good sanitary condition of the tent-hospital, as well as to the experienced care bestowed upon his patients by the Surgeon-in-chief. Although no "antiseptic treatment," strictly speaking, was used for the wounds, measures were frequently taken to disinfect the tents, previously evacuated for the purpose, by means of chlorine, evolved in thin vapors; sulphate of iron and solution of permanganate of potassa were also used.

The surgical cases treated at the ambulance reached 247 in number; of these, 114 were cases of *compound fracture*, and as some of the patients had sustained multiple injuries, the total number of compound fractures was 126; these injuries were distributed as follows:—hip-joint, 4 cases; thigh, 3; knee, 7; leg, 7; ankle, 10; head of humerus, 9; scapula and clavicle, 12; arm, 6; elbow, 4; forearm, 9; wrist, 4; hand, 11; head, 10; face, 7; chest, 10; back, 9; pelvis, 4. "Notwithstanding the large number of fractures, conservative surgery was so largely practised that, of the 126 cases, only nine seemed to require amputation of the long bones." The mortality was 47, or a little over 19 per cent. of all the cases of compound fracture. "The results of these cases, as a whole, will compare favorably with those of a similar class in other wars," says Dr. Swinburne, and we will add, without fear of contradiction, that in no other military hospital or ambulance in Paris, were similar results attained or even approximated.

During the early part of the siege, the great success obtained at the American Ambulance was very striking; all the more so, when it is known that the vast Palais de l'Industrie, in the Champs Elysées, which was occupied by the Société de Secours aux Blessés, contained cases of pyæmia and ery-

sipelas within three weeks of its inauguration as a military hospital. "From the beginning of the siege to the 30th of November, 1870, above sixty wounded men were treated in the Ambulance. Of these but two died, and the immediate cause of their death was tetanus. Four of the above number were amputated through the thigh for wounds of the knee-joint; two compound fractures, one through the neck and one through the shaft of the femur, were successfully treated by conservation, and are now well, walking with crutches, and possessed of good limbs; one compound fracture of the tibia, just below the knee, recovered, but afterwards received an injury in another part, from which he died; two gun-shot fractures of the wrist, and two of the ankle-joint, recovered with useful limbs; two comminuted fractures of the scapula, a number of gun-shot fractures of the bones of the forearm, hands, feet and fibula, one resection of the shoulder-joint, for compound fracture of the head of the humerus, in a soldier suffering from large, pleuritic effusion, one wound through the chest, ball passing through the right lung, entering the third rib anteriorly, and passing out posteriorly under the scapula, besides several other serious cases, not particularly interesting in a surgical point of view, were successfully treated."

"We now come to a period extending from the 30th of November, 1870, to the end of the siege, in which food and fuel in sufficient quantity or of proper quality, were not to be had, so that all the wounded whom we received, much exhausted from exposure and want of food and fuel, were in a condition unfavorable for surgical treatment. Many were suffering from the usual camp diseases such as diarrhœa, dysentery of a typhoid character, and chills and fever. Others had been lately discharged from hospitals, where they had been under treatment for the prevalent diseases, bronchitis, pneumonia and pleurisy, and sent to field duty, and were, therefore, still very feeble. Indigestion was the rule when food was taken; while some were unable to eat, even when suitable food was offered. Subsequently to this period, the mortality was increased, owing to the causes above enumerated, and to the mortal nature of the wounds. For example, from seventeen shell wounds received from Drancy in one day, eight died in a short time from their wounds. Still later during the siege, several died from acute pulmonary disease, superinduced by deficiency of fuel. Some of the deaths, as will be seen by reference to the history of the fatal cases, occurred immediately on, or a few hours after, arrival, while others, whose wounds were equally mortal, shared the same fate at a later period. It is, therefore, scarcely necessary for me to add that the greatly increased mortality after the 1st of December was due to causes over which surgery had no control."

Dr. Swinburne gives reports of many of his most interesting cases, selected so as to exemplify the treatment used in the different varieties of severe gun-shot wounds; these reports are followed by short histories of all the surgical cases, 47 in number, which terminated fatally. Reviewing the causes of this mortality, Dr. Swinburne undertakes to show that *no cases of pyæmia occurred in the American Ambulance*; he throws aside pyæmia, and the allied forms of septic infection which are known to be by far the most common causes of death among wounded men when aggregated together in considerable numbers, and attributes the fatal termination observed in 47 out of 247 surgical cases, to a "*want of recuperative power*," due to imperfect hygienic conditions before and after the receipt of the injury. "In order," he says, "that the public may rest fully satisfied on this point, I have given a detailed history of every death." It would have been very gratifying to those who are interested in the success of tent-hospitals, if it could have been satisfactorily shown that pyæmia had been successfully excluded from the tents composing the American Ambulance; but we fear that Dr. Swinburne's demonstration must be considered incomplete, and that we must be content to claim for the tent hospital only relative and not absolute success in the attempt to exclude the deleterious influences which constitute hospitalism, and engender septic infection. Dr. Swinburne's reports of fatal cases are so summary as to be of little or no value for the purpose of establishing the non-

existence of septicæmic complications; the reports are particularly deficient in one important point; in only 11 cases was any *post-mortem* examination made, and in these it was very incomplete; in no case is there any mention of the condition of the viscera, and of the synovial and serous membranes. The non-existence of pyæmia can only be pertinently demonstrated by a thorough *post-mortem* examination, showing the absence of metastatic abscesses and other lesions characteristic of this disease.

The object with which the American Ambulance was created was not only to render material assistance to our French friends by helping them to take care of their wounded, but also to impart the experience derived from our own recent war, in which the applications of sanitary science were more effectively used than ever before. The great interest which was excited among the public, both lay and professional, by the American tent hospital, and the very complete account of its doings, published under the care of the President of the Committee, give us reason to hope that the philanthropic efforts of the promoters of the Ambulance may not have been made in vain.

The volume before us, we may say in conclusion, though somewhat marred to the exclusively professional eye by a redundancy of narrative of purely private and personal interest, and by the excessive length of the historical portions, still gives an impression of good, useful work, most thoroughly accomplished, and so it is extremely creditable to those who were in charge of the American Ambulance, and have here narrated their experience.

T. B. C.

Boylston Medical Society of Harvard University. Catalogue. March, 1874.
Boston: D. Clapp & Son.

THIS Society has just published a new catalogue, under the supervision of a special committee appointed for the express purpose of correcting any errors which may have crept into previous catalogues. It is a matter of regret that the committee should have allowed the catalogue to be published with so many errors, nearly all of which could have been avoided if the young gentlemen who formed the committee had only asked advice of those who had had experience in the preparation of similar catalogues. A hasty examination shows from thirty to forty errors, for few of which there is any excuse. The committee are entitled to great credit, however, for the valuable addition which they have made to the list of the successful candidates for the Boylston Prizes, a list which, heretofore, was far from complete.

It is to be hoped that the next time a catalogue is printed, a careful correction will first be made of the numerous errors in the present one.

Anatomy of the Invertebrata. By C. TH. V. SIEBOLD. Translated by WALDO I. BURNETT, M.D. Boston: James Campbell. 1874. Pp. 470.

THE merits of this work are too well known to make any review of it necessary, as the present volume does not differ materially from the previous edition. It has been for some time out of print, and we are very glad to see it reproduced.

BLOW AT CHARLATANS.—The committee appointed by the Texas Medical Society to examine the act to regulate the practice of medicine in that State, have presented the following amendment, among others, to be recommended to the legislature:—

“Section 7. Any person who is not a citizen of Texas, entitled to vote, who shall come into the State and advertise to perform surgical operations, or cure diseases, shall, before entering upon such practice, pay into the county treasury the same tax as is paid by persons exhibiting a circus performance or menagerie, and, for violating this act, parties guilty of the same shall be subject to the same penalties, to be collected in the same way, as for circus and menagerie exhibitions.”

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 2, 1874.

WE occasionally see that some prisoner, who has been pardoned from the State Prison, or one who has been let out on probation, is sent back to the prison to serve a new term, or the remainder of his old one. And, again, we find that the Governor pardons some one to die among his friends and relations, because he is too sick to remain at Charlestown.

We protest against such apparent lenity. If a man has committed a crime for which imprisonment for five years is the proper amount of punishment, not one day nor one hour should be cut off, be he sick or be he well; and whether his days are to be shortened by it or not. The prison has a hospital attached to it, and there is the place for treating the prisoner. That he is to be sick away from home is the result of his crime, and is a part of his punishment. There would be as many good reasons for allowing him to choose his medical attendant, or the style of his dress, as there are for allowing him to choose the place to be sick in. The practice of pardoning one or more well-behaved prisoner once a year is a part of the same folly. A large number of criminals can behave well for the sake of getting free from prison walls, and another and equally large number can play sick to perfection, if that be the easiest way to escape from punishment. Feigned sickness is easily recovered from, and so is the real sickness, which often seems to be of the severest character. Yes, every physician knows that even consumption is recovered from. And there is just as much reason for paying the poor, sick villain's passage to a Southern climate, as there is for discharging him from bonds.

Playing insanity is one form of playing sick, and of late years it has become a cheap way to escape the gallows. Insanity is a disease, it is true; but its imitation is so easy that a large number of criminals imitate it readily. Insanity varies as much in its severity as any other disease, and, in the largest proportion of cases, the insane man knows enough not to hurt himself in the paroxysms. We are very much inclined to think that if the penalty of the law were inflicted upon one insane man, in consequence of his violating that law, the violations would not be one tithe of what they are now. Insane men are not fools.

We are perfectly aware of the hue and cry that the advocating of this plan would produce, but it would be for the greatest good of the whole.

The object of punishment is not revenge for crime already committed, but prevention of crime, which otherwise will be committed. At this day, the greater the crime, the less likely punishment seems to be; and as a consequence murder is a favorite means for preventing detection. When a murder case comes before a jury for trial, that body objects to conviction, lest they may be the means of sending into the presence of the Almighty, him who is black with sin and unable to repent and be forgiven. Just as if the Lord had lost His power over those condemned to be hanged; a moderately conceited way of expressing the superiority of human over Divine mercy.

RENEWED attempts have lately been made to victimize the public by representations that a physician had become the successor of a notorious individual named Basto, in the application of a *pretended* secret remedy for fistula, piles, &c.

As is well known, the Basto method is neither a secret nor a new mode of treatment, but consists in the introduction of a seton or rag, smeared with a paste of caustic potash. The "infernal" pain (as described by the sufferers) attending each renewal of the application, and the slowness of the cure, as compared with the period of recovery under proper treatment, long ago led to an abandonment of this method by the profession; and nothing could be more absurd than a claim of value or novelty for this obsolete and barbarous practice.

THE following is the list of graduates from the Harvard Medical School during the year 1873-74, with the titles of their theses. Names in small capitals are those of students graduating in February, under the old system:—

- William Sturgis Bigelow, A.B.—*Unusual Results of Septic Poisoning.*
 Lewis Lincoln Bryant.—*Milk.*
 Edward Marshall Buckingham.—*Certain Surgical Dressings.*
 George Greenleaf Bulfinch.—*Scarlatina.*
 John Standish Foster Bush.—*Stricture of the Urethra.*
 Leander Albert Cliff, A.B.—*Empyema.*
 CHARLES HENRY COLBURN.—*Tuphlo-Enteritis.*
 WILLIAM SAGE CROSBY, A.B.—*Delirium Tremens.*
 Frank Henry Davenport, A.B.—*Amenorrhœa.*
 William Sawyer Dennett, Jr. A.B.—*Nature vs. Science in Midwifery.*
 Marshall Perry Eayrs.—*Rational Medicine.*
 EDWARD WALDO EMERSON, A.B.—*The Thermometer in Medicine.*
 SAMUEL PAGE FOWLER, A.B.—*Diabetes Mellitus.*
 George Minott Garland, A.B.—*Some Experiments upon the Line of Dulness in Pleuritic Effusion.*
 Edwin Peabody Gerry, A.M.—*The Therapeutic Value of Subcutaneous Injections of Ergotine.*
 Robert James Hallaren, A.B.—*Conjunctivitis.*
 Richard Harrison.—*Trephining.*
 FRANK STILLMAN HILLARD.—*Colchicum.*
 William Barker Hills, A.B.—*Urinary Sediments.*
 GEORGE OSCAR JENKINS.—*Secale Cornutum.*
 SETH WIGHT KELLEY, A.B.—*On the Value of Hot Milk in certain Bowel Diseases.*

- Francis Boott Loring—*Aphasia*.
 STEPHEN CROSBY MARTIN—*Hæmorrhoids*.
 Edward Jesse Moors—*Aphasia*.
 William Edward Moseley—*Empyema*.
 DUNCAN BARBOUR MYSHRALL—*Tetanus*.
 George Whipple Porter, A.M.—*Empyema*.
 Andrew Fairfield Reed, A.B.—*Tracheotomy*.
 Thomas Morgan Rotch, A.B.—*The Emigration of the White Corpuscles in Inflammation*.
 Edmund Doe Spear, Jr.—*Chronic Catarrhal Pneumonia*.
 HUGH JOHNSTONE SPEER—*Pathology; its Elements*.
 Flavel Shurtleff Thomas—*Poppy and its Juices*.
 Edward Tobey Tucker, A.B.—*Intermittent Fever*.
 Herbert Warren—*The Pneumatic Aspirator*.
 WILLIAM HENRY WESCOTT—*Anæmia*.
 Morris Plumer Wheeler—*Air*.
 Frank Blaisdell Wilder, A.B.—*Cannabis Indica*.
 Charles Herbert Williams, A.B.—*Experiments on the Action of Bile in Promoting the Absorption of Fats*.

THE "CONSEIL GENERAL DU RHONE" announces that a prize of 2,000 francs will be awarded to the author of the best monograph upon the subject of *Foundlings*. The following embrace some of the questions mentioned as worthy of especial attention in this connection:—

1. Causes which lead to the desertion of infants. What results are furnished by statistics collated at the present time?

Do our social, political and religious institutions have any tendency to increase the number of foundlings? Did the habit of abandoning young children prevail in ancient times? What literature is extant upon this subject? Is it possible to determine the exact period, at or about which the custom of deserting infants began to be extensively practised, and under what influences, social and religious, did this change occur?

2. What measures can be suggested, the adoption of which will bring about a reduction of the number of foundlings?

What become of foundlings? Compare their condition, moral and physical, with that of other children.

3. What methods can be suggested for ameliorating the physical and moral condition of foundlings, and reducing the rate of mortality which prevails among this unfortunate class?

4. What is the best plan of bringing up foundlings?—*Lyon Médical*.

DR. W. L. APPLEY relates the particulars of a case of cystic goitre of twenty years' standing, occurring in a man aged 65, a complete cure of which was effected by evacuating the contents of the tumor by means of a trocar, and then introducing a rubber drainage tube, through which warm water was injected twice daily.—*Medical and Surgical Reporter*.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Tuesday and Saturday, June 16 and 20, 1874.)

OPERATIONS were performed in the following cases:—Necrosis of Humerus, Hydrocele, Hare-lip, Fistula in Ano, Stricture of Urethra. During the week, Necrosis of Upper-jaw, Pistol-wound of Hand.

Necrosis of Humerus—in a boy eight years old. Sequestra removed from upper part, leaving behind no diseased bone.

Hydrocele—Single, in a man fifty-two years old, third tapping; last time one year ago. Now, half a pint of clear fluid drawn off by trocar and canula.

Hare-lip—double, in a baby two months old. The fissure extended into the nostrils, and communicated with a cleft-palate; the inter-maxillary bone unusually prominent. The second fissure was left for a future operation.

Fistula in Ano—in a man. Laid open.

Stricture of Urethra—of gonorrhœal origin and ten years' duration, in a man fifty-four years old. Occasionally, retention of urine, relieved at one time by gradual dilatation with elastic bougies; while under treatment, was attacked by cystitis, and neglected to pass his bougie. The stream gradually diminished, until a filiform bougie enters with difficulty, owing to contraction, and to false passages from attempts at catheterization previous to entering the hospital. Under ether, the stricture was ruptured by Voilemier's divulsor, and a large elastic catheter passed into the bladder and left.

Necrosis of Upper Jaw—in a child five years old. Since she was seven months old, carious bone had from time to time been exfoliated through a fistula near the first molar tooth and another near the edge of the orbit. This tooth was extracted, and, through the opening made, a large quantity of dead bone removed.

Pistol Wound of Hand—in a man. The ball entered on the radial side, fractured the first metacarpal bone, and lodged under the skin, on the ulnar side of the fourth metacarpal bone. Wound enlarged and bullet extracted.

H. H. A. BEACH.

Correspondence.

THE PORTLAND SCHOOL FOR MEDICAL INSTRUCTION.

PORTLAND, Me., June 22, 1874.

MESSRS. EDITORS,—The past fortnight has been an unusually interesting one in medical circles in this city. The first event of importance was the annual meeting of the Maine Medical Association, which took place on the 9th inst., the session continuing three days. The attendance was very large, the papers numerous and able, the discussions animated, and the utmost good feeling prevailed. All things considered, the meeting is universally regarded as one of the most agreeable and profitable which the Association has ever held.

The other occurrence of especial note was the opening of the eighteenth annual course, and the dedication of the new rooms, of the Portland School for Medical Instruction, on last Wednesday evening, the 17th. During the past year, there has been an intermission in the operations of the school, for reasons which it is not important to specify. But the evident demand for an institution of this kind induced the physicians who had previously worked in the school to unite others with themselves, and start afresh on a somewhat different basis. Entirely new quarters were secured in the Canal National Bank building, one of the most centrally located, substantial and elegant edifices in the city. In the third story are the lecture-room and museum, while the fourth is devoted entirely to the dissecting-room. Every apartment is easy of access, well lighted, and supplied with gas and Sebago water, as well as the necessary furniture, and there are abundant accommodations for forty or fifty students. The importance of the undertaking seemed to warrant some formality at the opening, and invitations to attend the dedication of the new rooms were accordingly sent to the old students of the school, the physicians of the city, and other gentlemen prominent in various walks of life. Dr. Israel T. Dana, one of the two men who founded the school, and who has been connected with it from the beginning, had very fittingly been chosen as the orator of the evening, and gave a remarkably entertaining historical sketch of the institution—a task for which his intimate knowledge of its entire progress most eminently qualified him. I regret

that limited space does not permit a full report of the address. The following brief abstract, however, contains the essential points.

The school was organized in accordance with a resolution of the American Medical Association, "cordially approving the establishment of private schools, to meet the increasing desire of a respectable number of medical students for a higher grade of professional education than can usually be acquired under the direction of a single instructor." On this plan, the Boylston Medical School and a few others had already been established, and the physicians of Portland were not slow to appreciate the superiority of this method of instruction over the ordinary practice of "reading medicine" in the office of a preceptor. But the older men, though possessing, in a marked degree, qualities which fitted them to be teachers, were so absorbed in active professional business as to have no time to devote to students; they were willing, however, to give their countenance and support to a project of this kind. Accordingly, Dr. William C. Robinson, who had then been in practice here about seven years, and Dr. Dana, who had more recently settled in this city, agreed to take students together, and issued their first announcement in March, 1846. In January, 1858, an act of incorporation was obtained from the legislature.

From the beginning up to the present time, there have been fifteen different instructors in the school, as follows:—

Dr. Robinson, from 1856 to the time of his death in '72; Dr. Dana, all the time; Dr. S. Fitch, for some months in the first year; Dr. Theodore Ingalls, in 1857; Dr. A. M. Paddock, in 1858; Dr. W. R. Richardson, 1859-61; Dr. C. H. Burbank, 1860-61; Dr. Thomas A. Foster, 1862-70; Dr. George L. Goodale, 1863-67; Dr. S. H. Tewksbury, 1866-69; Dr. Stephen H. Weeks, 1867-72; Dr. Wm. Warren Greene, 1868-72; Dr. Charles O. Hunt, 1869-72; Dr. Frederic H. Gerrish, 1869-72; and Dr. George F. French, 1871-72. Of these, five have been professors in the Medical School of Maine, namely: Drs. Robinson, Dana, Greene, Goodale and Gerrish; and the last three have been professors in two colleges at the same time. Two, Drs. Dana and Tewksbury, have been Presidents of the Maine Medical Association. Drs. Burbank, Richardson and Hunt held commissions in the army or navy. Three have died—Drs. Ingalls, Richardson and Robinson—and brief sketches of the lives and services of all were given, but the career of the latter was particularly dwelt upon. His professional ability and enthusiasm, his honorable ambition and public spirit, his faithfulness in every relation of life, his kindness to the poor, all were spoken of with a fervor and tenderness which were the natural outgrowth of a close intimacy of nearly twenty years; and the audience, composed as it was very largely of his former students and professional brethren, most heartily concurred in every word which eulogized his virtues and deplored his death.

Over one hundred and fifty students have been connected with the school. The first year saw the smallest number, two; the last year the largest, twenty. The average number for ten years past has been fifteen. The advantages of the discipline which the school affords its students have been constantly noticed in the superior standing which they have taken in the medical classes of various colleges and in the walks of private practice. Four of its students have been teachers in the school, three have been professors in the Medical School of Maine, one a professor in Bowdoin, one a professor in Harvard, one a professor in the University of Michigan. The list of those who have distinguished themselves in other public and private stations is far too long for insertion here.

After twelve months of intermission, the school enters upon its eighteenth year of instruction. Portland presents a field for medical teaching which its physicians are under obligations to develop. The instructors propose to engage in this work,

First, with true *esprit du corps*, actuated by a love of the profession, by a sincere conviction that its work of saving life, of mitigating suffering, is dignified, noble and sacred, by a purpose to inspire their students with an ardent enthusiasm in their calling.

Second, they undertake the task in the spirit of generous coöperation, each appreciating the peculiarities of all the rest, and magnanimously striving to utilize, rather than oppose, the diversities of temperament, taste and opinion which inevitably exist among men.

Third, they enter on the labor with a genuine love of truth. The facts of medicine must be clearly observed, the very fabric, the parenchyma, of the mind, must come in contact at every point, that an accurate impression may be obtained; even as the sculptor, in making a cast, takes pains that his clay shall touch every part of the surface, that the work may be true to life. This observation of facts is the basis of all our knowledge; the foundation thus laid we advance by the application of reason to them. In determining questions of science, the mind must be divested of all prejudice, must not be tied to any exclusive dogmas, nor be determined to swear in the words of any particular master. "The love of truth and fairness in searching for it" are both essential to good progress. We should approach our study with the purpose of a judge, not of an advocate.

One result of such work is a growing humility. The mind is observing the work of the Almighty and seeking to get an understanding of His infinite ways. It is only the very young student who can boast of his knowledge, and spread the gay feathers of conceit and self-satisfaction.

In the spirit of such considerations, we now dedicate these school-rooms to the study of true medical science.

After the address, speeches were made by the Rev. Edw. Y. Hincks, of the State Street Church; the Hon. Wm. Thomas, Jr., Speaker of the House of Representatives; the Hon. Israel Washburn, Jr., Collector of the Port; and Dr. Alfred Mitchell, Professor of Obstetrics and Diseases of Children in the Medical School of Maine; representing, respectively, theology, law, commerce and medicine. The speakers were all very happy in their remarks, which were received with great favor by the audience. Finally, the assembly, by invitation of the teachers, sat down to an elegant and bountiful supper at the Falmouth Hotel, where further remarks were made by Mr. A. A. Strout, Hon. W. L. Putnam and others.

The summer term commenced the next day, a goodly number of students being in attendance. Systematic daily recitations are held, familiar lectures and demonstrations regularly given, ample clinical advantages afforded and abundant facilities given for the study of practical anatomy. At present, there are twelve instructors:—Drs. Dana, T. A. Foster, Tewksbury, Weeks, Greene, Hunt, Gerrish, French, Gordon, Small, B. B. Foster, and Bray; and, if one may judge from the manner in which a beginning has been made, their anticipations of a successful course will be more than realized.

GAMMA.

Obituary.

THE LATE GEORGE DERBY, M.D.

{ HARVARD UNIVERSITY MEDICAL SCHOOL,
Boston, Mass., June 26, 1874.

MESSRS. EDITORS,—At a meeting of the Faculty, on the 22d inst., the following was adopted:—

"Resolved, That the Medical Faculty of Harvard University have learned with the deepest regret of the death of their late associate, Dr. George Derby.

"His talents, zeal and untiring industry made him preëminent in the department over which he presided, and render the loss to the profession and the community almost irreparable, while his high moral character, courtesy and genial manners greatly endeared him to us."

It was also voted that a copy of the above be sent to the MEDICAL JOURNAL for publication.

Very respectfully yours,

C. ELLIS, Dean.

Medical Miscellany.

THE CONNECTICUT RIVER VALLEY MEDICAL ASSOCIATION will hold its July meeting at the Brooks House, Brattleboro', Vt., on Wednesday, July 8th, 1874, at 9 o'clock, A.M.

THE prompt passage by the Legislature of the resolution granting to the family of the late Dr. Derby the amount of his salary for the remainder of the year is a proper, though scanty, recognition of his service to the State.

DEATH OF A GIANT.—In the official register in Scotland, is recorded the death of an Irishman, occurring in that country in 1873, whose height was *seven feet eight inches*.

FORMULA FOR TOPICAL APPLICATION IN DIPHTHERIA.—

Rx. Acidi carbolici, gtt. v.-x.;
Liquor. ferri subsulphatis, ℥i.-ij.;
Glycerinæ, ℥i. M.

PROFESSOR COHNHEIM, of Breslau, who has been suffering from illness, has recovered sufficiently to be able to return to his professional duties. Professor Pitha, of Vienna, has been obliged to visit Mentone and Meran for the benefit of his health. He is so far better that he expects to be able to return to Vienna in the autumn.—*London Medical Record*.

WATERING PLACES IN SPAIN.—The Spanish Government has just issued an elaborate series of regulations regarding bathing and mineral-water establishments in Spain and the adjacent islands. The duties, rights and privileges of the medical directors of these institutions are, *inter alia*, laid down with much minuteness.—*London Medical Record*.

A CURIOUS instance of superstition is reported from Lewiston, Me. A family there, who had lost several of its members by consumption recently, had the body of the last one who died disinterred and reburied face downward. This was in accordance with a belief that to stop the ravages of the disease in the family it is only necessary to bury the last victim face downward.—*Medical and Surgical Reporter*.

SULPHATE OF CADMIUM IN BLENNORRAGIA.—M. Gazeau recommends injections of this salt instead of sulphate of zinc, on account of its more highly stimulating and astringent qualities. In the acute stage, the injection may be made of the strength of one-half grain to the ounce of water, to be used every two hours. Copaiba may be administered for the first few days, and cases are frequently cured in five or six days. In chronic blennorrhagia, the following combination should be used:

Rx. Cadmii sulph., gr. xvi.;
Bismuth. subnit., ℥vss.;
Aq. dest., ℥iiss.—M.

Sig.—Inject after each urination.—*Medical Times*.

HOW SMALLPOX IS SPREAD.—The following fatalities from smallpox are reported by the *North Devon Journal*. A boy of Combe Martin, an apprentice to a firm of drapers in Bristol, was lately taken ill, and sent to a medical gentleman, and almost immediately afterwards sent home by train, a telegram having been previously sent to his friends to send a conveyance to meet him at the railway station. It was a cold, raw day; and the parents, not supposing that their son was seriously ill, sent an open vehicle to bring him home. On his arriving at home, it was at once seen that the youth was suffering from smallpox. After a few days he died. The young man who fetched him from the station also took the disease and died, and the woman who nursed him is seriously ill. Two men who put the body into the coffin caught the infection, and one is reported dead. Another woman who took tea with the nurse likewise caught the disorder.—*London Medical Record*.

FINE OF A HOMŒOPATH.—An irregular practitioner was recently fined at Brest for practising without a diploma. He was a retired naval officer who had found means, during several years, to increase his income by the sale of tiny bits of sugar steeped in liquids, for the nominal sum of fivepence each. He called himself a homœopath, and openly visited patients, and gave consultations, charging the same fees as the medical men of Brest. This was no vulgar and illiterate impostor, and his success was the greater as he was a superior naval officer, and always gave his consultations in full uniform.—*Medical and Surgical Reporter*.

FORMULÆ FOR THE TROUBLESOME COUGH OF PHTHISIS.—

℞. Potassii bromidi,
Potassæ chloratis, } aa ʒiss.
Ammonię muriatis,
Syrup. tolutani, ʒiv. M.

Tablespoonful every two or three hours.

℞. Tincturæ opii camphoratæ, ʒi.;
" belladonnæ, ʒi.;
" hyoscyami, ʒij.;
Spiritus lavendulæ comp., ʒi. M.

Ten drops on a lump of loaf sugar every hour until cough is relieved.—*Charity Hospital, New York*.

FOR CONSTIPATION.—

℞. Aloës Socotrinæ, gr. xv.;
Ext. anthemidis, gr. xv.;
Ext. rhei, ʒss.;
Zingiberis pulv., gr. viii.—M.

Divide into twenty pills; one or more at night as required.—*Medical Times*.

NOTES AND QUERIES.

CAKES AND ALE.—They have "good times" at district, or, as they call them, branch society meetings in England; witness the following from a notice for a meeting this month: "Luncheon from 12 to 1, P.M. Dinner at 4, P.M., precisely. Tickets, 10s. 6d. each, including a pint of wine." ***

DIED.—At Newton, June 24th, Dr. Thomas B. Hitchcock, aged 35.

MORTALITY IN MASSACHUSETTS.—Deaths in twelve Cities and Towns for the week ending June 20, 1874.

Boston, 113; Worcester, 9; Milford, 4; Chelsea, 6; Cambridge, 12; Lawrence, 9; Springfield, 9; Lynn, 16; Newburyport, 5; Somerville, 6; Fall River, 13; Holyoke, 10. Total, 212.

Prevalent Diseases.—Consumption, 41; pneumonia, 23.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 27th, 135. Males, 62; females, 73. Accident, 3; abscess, 1; apoplexy, 2; inflammation of the bowels, 2; bronchitis, 1; inflammation of the brain, 3; congestion of the brain, 2; disease of the brain, 8; burned, 1; cancer, 3; cholera infantum, 4; consumption, 22; convulsions, 2; croup, 1; debility, 2; diarrhoea, 3; dropsy of the brain, 7; dysentery, 1; diphtheria, 2; erysipelas, 2; scarlet fever, 4; typhoid fever, 4; gangrene, 2; disease of the heart, 7; hæmorrhage, 1; ileus, 1; disease of the kidneys, 3; congestion of the lungs, 2; inflammation of the lungs, 5; marasmus, 8; measles, 3; malformation of the heart, 1; homicide, 1; old age, 4; paralysis, 1; pleurisy, 2; premature birth, 1; peritonitis, 1; puerperal disease, 1; rheumatism, 2; sunstroke, 1; tumor, 1; uræmia, 1; whooping cough, 4.

Under 5 years of age, 65; between 5 and 20 years, 15; between 20 and 40 years, 24; between 40 and 60 years, 17; over 60 years, 14. Born in the United States, 97; Ireland, 30; other places, 8.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, JULY 9, 1874.

[No. 2.

Original Communications.

TRANSFUSION.*

By JAMES R. CHADWICK, M.D.,

Lecturer on Diseases of Women, Harvard Medical School; Fellow of the Obstetrical Societies of Boston and London.

It is not to be expected that this operation would have found much favor prior to the discovery of the circulation of blood in 1628, and yet we come across so many mentions of it in ancient writings that we are fain to admit that the idea of reanimating the vital forces by the introduction of healthy blood into the system has been a familiar one in all ages of the world. Whether transfusion was ever practised before the 17th century, we have good reason to doubt, in spite of the affirmative testimony to be derived from many incidental references in old manuscripts.

The ancient Egyptians are said to have employed this means to cure their princes. An old Jewish document records the fact that "Naam, prince of the army of Ben-Adad, King of Syria, when attacked with the leprosy, applied to his physician, who, to effect a cure, removed the blood from his veins and replaced it with other blood." Medea is represented by Ovid as offering to restore youth and strength to Peliias by replacing his aged blood with that of a young man.

Without discussing the credibility of these and similar statements, we may pass on our historical Pegasus over the Great Dismal Swamp of the middle ages without drawing rein until we reach the 17th century. In its early years, we again find attention directed to this method of treatment, but it was not until the year 1665 that Richard Lower, an Englishman, first published a complete description of the procedure to be followed in transfusion, and performed the operation upon animals. Stimulated by the accounts of his success, Denys, professor of philosophy and mathematics in Paris, after repeating the experiments on animals, at length, in two instances, successfully transfused a lamb's blood into the human circulation. The publication of his results gave rise to the most violent excitement in Paris. One party "laid claim to the discovery of a universal remedy which would restore health, youth and vigor, assuage diseases of the mind, calm the most violent dispositions, and might even prolong life beyond its natural term." Their opponents contended that not only were these pretensions false, but that the operation was always dangerous and sometimes fatal.† Laury, for instance, an eminent surgeon, maintained that certain particles of the blood were distributed to nourish certain

* Read at the Annual Meeting of the Massachusetts Medical Society, June 3, 1874.

† Cyclopædia of Practical Medicine. Article, Transfusion.

parts of the body, and asked what would become of those ingredients of the blood which nature intended should produce the horn of a bull, if a bull's blood were introduced into the human circulation. He also thought that the stupidity and low instincts of the animal would thus be transmitted to the man. The latter party finally prevailed by unfair means, and caused the operation to be interdicted in France, unless done with the approval of a member of the Faculty of Paris.

Upon receiving this blow, transfusion again sank into oblivion, not only in France, but in other countries.

In 1818, the great obstetrician, Blundell, revived the operation in England, and clearly demonstrated its beneficial effect in persons sinking from excessive hæmorrhage. His statements found an echo on this side of the Atlantic, in a paper written by Dr. Walter Channing, of Boston, published in the first volume of the *Boston Medical and Surgical Journal*, in which he strongly recommends transfusion, without, however, having practised it himself.

From that time down to the present day, transfusion has had a struggle to retain its place among the recognized resources of surgery. Milne-Edwards, Diffenbach, Bischoff, Polli, Nicholas, all strove to elevate it to a legitimate position, but it has only been during the last few years that its claims have been admitted. This result has been principally achieved by the writings and researches of Oré in France, Gesellius in Russia, Hasse in Germany, Aveling, McDonnell and Higginson in England. A fresh impulse to the study of transfusion, and to its more extensive employment, was given about a year ago by the report of a successful case made to the Obstetrical Society of London, by Dr. Aveling, and the exhibition of a very simple instrument, by means of which the blood can be transferred directly from vein to vein without the defibrination which has heretofore proved the greatest bar to its general adoption. Since then, English, French and German journals have been teeming with reports of cases, experiments, &c.

Having thus briefly glanced at the checkered history of transfusion, let us consider some of its physiological bearings. Writers upon this subject have all failed to emphasize the great distinction between the classes of cases to which the operation is applicable, and have, consequently, lost sight of the special and different indications which call for the operation in each of these classes. It will be the chief object of this paper to set forth the elementary physiological principles on which transfusion must rest, and then deduce from them some rules to guide us in the employment of this method of treatment. We all know that transfusion has been performed in acute anæmia consequent upon excessive hæmorrhage, in cholera, phthisis, cancer, chlorosis, mania, dysentery, pyæmia, septicæmia, &c. I propose to divide the cases in which transfusion may be practised, with a reasonable prospect of benefit, into four groups, basing the distinction upon universally accepted views as to the constitution of blood in health as compared with that in the various diseases which result in an altered condition of the fluid. I suggest this classification as the only one possible in the present state of science, but I foresee and predict that further researches of physiologists will render a much closer discrimination possible, and lead to a much more rational use of transfusion. Let us take up each class separately.

First, a patient, most often a woman after childbirth, has profuse

hæmorrhage; she lies motionless, moaning, bathed in a cold sweat; her pulse cannot be felt; the heart beats feebly, and threatens to cease at any moment; stimulants fail to arouse the vital forces, and we turn to transfusion as the only remaining resource whereby to rekindle the flickering spark of life. How, then, does transfusion effect this result? The first and essential indication is to keep the heart beating; but, before we can expect to accomplish this, we must understand clearly why its action is failing. Here, I believe, authors have been at fault in overlooking the chief factor. They have, so far as I know, all sought to ascribe the enfeeblement and ultimate arrest of the heart's action to the cerebral anæmia and the consequent withdrawal of the necessary stimulation. If my theory, however, is correct, the heart ceases to beat, in a great measure, under the influence of a purely physical law. Before it can contract, the heart must dilate, but this it cannot do unless the afferent veins are in condition to pour into its cavities the needed supply of blood. If they are empty, and cannot fulfil this requirement, the heart is held in a stronger than giant's grip. This condition is not produced in a moment of time; as the blood escapes from the peripheral vessels, a gradually diminishing amount returns to the heart, and thus its dilatation is more and more impeded, and, finally, its action altogether arrested. To meet this emergency, the infusion of any innocuous fluid into the vessels would suffice to free the heart from bondage, but physiology now steps in and claims for the organism a constant distribution of oxygen throughout its numerous members, and an equally uninterrupted removal of carbonic acid; these failing, we have asphyxia and speedy death. These two processes are carried on by means of the red blood corpuscles; if they are not circulating in sufficient numbers, the relative proportion of oxygen and carbonic acid in the system is disturbed, the brain consequently ceases to perform its functions, and the heart to beat. I do not mean to imply that the two laws, adduced to explain the cause of death after excessive hæmorrhage, act independently of each other. The influence of both is undoubtedly felt from the outset; but I do assert that neither can be disregarded in studying this question. Some authors strive to explain the good effect of venous transfusion by supposing that the blood "goes direct to the heart, which is stimulated to increased action by the presence of its natural stimulant;"* this explains nothing. Other processes are unquestionably carried on by the blood in its circuit, but we know of none whose interruption is immediately followed by ominous symptoms or death. They may, therefore, be practically overlooked in this category of cases. We thus have two indications to fulfil: first, fill the vessels with a fluid, so that the heart will not have to struggle vainly against one of nature's physical laws; and, secondly, let that fluid contain enough blood corpuscles to disperse oxygen and remove carbonic acid throughout all parts of the economy, in quantity proportionate to their several needs. It is evident that blood alone will meet those requirements. The presence or absence of fibrin, which has been much discussed from a physiological standpoint, is clearly of no importance, so far as the immediate demands of the system go, unless it is needed to preserve the viscosity of the blood as essential to its steady circulation—to ensure the integrity of the red corpuscles—or to prevent serous exudations. These

* Dr. Madge, in *Obstetrical Journal of Great Britain*, ii. 2, p. 128.

possible dangers have not been satisfactorily demonstrated as facts, so that I may venture to say that, provided coagulation of fibrine can be prevented during the blood's transit from one vascular system to the other, we may practically ignore the mooted question of defibrination.

In the second series of cases, I include those diseases such as cholera, dysentery, perhaps anasarca and other serous effusions, in all of which the watery elements alone are extracted from the blood; the vessels then partially collapse, and the heart, as before, falls a prey to nature's abhorrence of a vacuum. Many of the nutritive ingredients of the blood may, unknown to us, be lost with the serum; but the blood corpuscles remain, as does our ability to resuscitate the patient, if we can provide a means of carrying them on their errands throughout the system. Inject any fluid which will not destroy the integrity of the blood corpuscles and the patient is saved from the immediate danger. This explanation accounts for the great revival reported from the infusion of salt and water in the prostration of cholera; clear water having been shown to cause the blood corpuscles to swell, and, finally, become disintegrated. The ultimate death of most such patients, after a real, though temporary improvement, would rather indicate that the salt and water had some subsequent deleterious influence, the effect of which does not declare itself for a day or two. With a view to the permanent recovery of these patients, it will, therefore, be advisable to inject blood, until physiologists have discovered an artificial serum, devoid of all harmful properties, or until it should be found that the mass of blood corpuscles is made by transfusion so excessive as to render the blood too thick to circulate freely.

The third class embraces all those cases in which, through some occult failure of the digestive, absorptive, assimilative, or other vital processes, the blood is so wanting in nutritive elements as to be unfit to make good the waste of tissue throughout the economy. Transfusion is here resorted to for the purpose of supplying a fluid that contains every kind of food, which the system requires. I especially include every nutritious constituent, because the present position of science rarely enables us to penetrate so deeply into the mysteries, even of our physical nature, as to determine what special element is wanting to restore the blood to its normal composition in any given disease. Blood is again the only fluid which, as far as our present knowledge goes, will meet the wants of the system. The question of defibrination now assumes a vital importance, and its permissibility depends upon whether we accept the doctrine that fibrine is only one form of albumen, and thus a nutriment, or agree with other physiologists, who are led, by "its absence from the blood which has passed through the great depurating organs of the body,"* to regard it as a purely excrementitious element; in the latter case, its removal from the blood to be infused becomes an act of purification, and renders the blood better fitted to perform its functions. This last argument loses much of its force, however, when we reflect that the same office of defibrination is, by the admission of those who lay stress upon this point, thoroughly effected by a single passage of the blood through one of these depurating organs.

The fourth and last category contains those cases in which, owing to the inefficient performance of the eliminative functions, or to the

* Dr. R. McDonnell. *Obstetrical Journal of Great Britain*, i. 8.

introduction of injurious matter from without, the blood is so charged with noxious elements as to poison all the parts of the system through which it flows. Here our chief aim is, not to put anything into the circulation, but to take from it these pernicious ingredients. *Uræmia*, *pyæmia*, *septicæmia*, perhaps cancer and others, play the chief rôle among these diseases. We must remove the poison by some means, before it destroys life; this might be accomplished by banishing the source of contamination, by promoting the elimination of the poisonous substances through the natural excretory organs, by introducing into the circulation an antidote which would render the noxious elements harmless, or, finally, by substituting a healthy for an unhealthy blood, thus getting rid of the infectious ingredients. All these methods have often been known to fail; the last has been proposed as offering theoretical advantages, but I cannot learn that transfusion has proved of permanent benefit in such cases.

To sum up: Healthy blood is—physiologically speaking—the best fluid for infusion in every class (except, possibly, in the second) where the treatment is to be directed at increasing or bettering the circulating medium; but, as fresh human blood is not always to be obtained at a moment's notice, it may be well to consider whether other fluids may be used with any prospect of success. Animal blood comes up as the most natural substitute, and has been fully tested by many observers. Quite recently, Hasse, in Nordhausen, has published thirty-nine cases in which lamb's blood was transfused into man; his results showed marked improvement in fifteen cases, temporary relief in thirteen, no improvement in two, and one immediate death. Such results appear to refute conclusively the experiments and theories which would make animal serum a solvent of human blood corpuscles, or represent animal corpuscles as incompetent to carry oxygen and carbonic acid in the human circulation, because they differ in shape and size from human corpuscles. It is certainly a wise precaution always to select, as the blood-donor, a lamb or a dog, since in them the corpuscles are smaller than in man.

In the first category, blood is evidently indispensable for transfusion, because blood alone contains the corpuscles required to distribute oxygen or remove carbonic acid. It would also seem fruitless to seek for any artificial substitute in such instances. It is different, however, with the second class, where a harmless fluid only is requisite. Experiments directed to solve the problem here involved are likely to succeed. In the third class, we practically seek to introduce already digested and perhaps assimilated food, thus relieving exhausted nature from the task of performing the process. The circulating fluid is probably not much reduced in volume, so that, before infusing new blood, we must remove some of the old, or a dangerous state of general plethora may result. Again, in this class, as in the fourth, a single transfusion, though occasionally giving nature time to rally its forces and thus turn the scale, more often fails to be crowned by marked success or failure. The cause of the depraved or contaminated state of the blood is apt to be still acting, so that the operation must be often repeated if we are to hope for a permanent good result; a single meal of digested food thus introduced, or a single abstraction of poisonous matter, avails but for the moment.

Having thus briefly shadowed forth some of the general physiologi-

cal laws on which transfusion is based, I will proceed at once to discuss the operation and the principal methods employed.

The immediate effect of injecting blood into the veins is varied ; the veins swell, the skin of the arms becomes red, perspiration forms upon the face ; dyspnœa and a feeling of fulness in the abdomen soon succeed the earlier symptoms. Sometimes there is vomiting, an irresistible inclination to go to stool. Finally, headache, giddiness and fainting. Pain in the back is invariable, often persisting for several days. Shivering and a rise of temperature of several degrees take place within an hour of the operation. Later, a profuse perspiration and sound sleep, from which the patient awakes much refreshed and strengthened. Albumen and hæmatin are sometimes found in the urine on the following day, but no blood corpuscles.

Dr. Madge* has formulated the principal methods as follows :—

1. Transfusion with defibrinated blood.
2. Mediate transfusion with pure blood.
3. Immediate transfusion from vein to vein.
4. Immediate transfusion from artery to vein.

1. Transfusion with defibrinated blood has thus far been the method most in vogue, its chief English advocate being Dr. Robert McDonnell, of Dublin. He regards defibrination as an essential condition, for the physiological reasons already cited, but more especially because of the rapid coagulation of pure blood and the consequent liability to the formation of small emboli, to which he attributes, rather unjustifiably I think, all the deaths which have occurred within a few days after the operation. Moreover, it has been shown that very small coagula almost invariably form, even in blood that has been whipped and strained, and that the corpuscles in such blood adhere together in rolls, and are, not improbably, altered by the treatment to which they have been subjected. Finally, it may be objected that of seventy transfusions with defibrinated blood, only eighteen have been successful.† Dr. McDonnell has operated in several cases, with three or four favorable results. His procedure is to catch the blood in a basin, and whip it with a stick, or better still on the grounds of cleanliness, with a glass rod. In two or three minutes, the fibrine is found adhering to the rod, when the blood must be strained several times through fine linen. It is then ready for use, and is placed in a glass cylinder, capable of holding six ounces, shaped like a syringe, but devoid of a piston ; to the nozzle is affixed a long rubber tube, with a canula at its extremity for insertion in the vein. The blood is driven into the vein by gravitation, aided by a small propelling bulb in the middle of the tube, and the occasional gentle blowing of the operator, with his mouth applied to the open top of the cylinder.

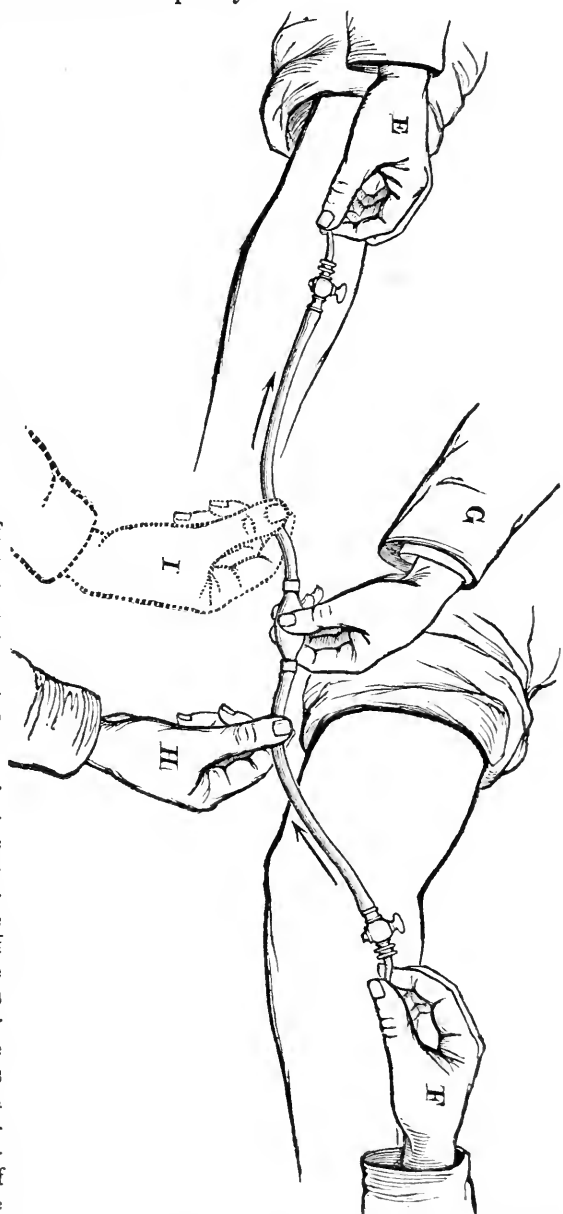
2. Mediate transfusion with pure blood has been performed by Mr. Higginson, of Liverpool, in fifteen cases, of which ten were successful. His instrument resembles a syringe, but is bulky, owing to the precautions taken to keep the blood and the instrument warm, and to prevent the entrance of air into the vein. These contrivances would seem superfluous, in view of the recent discovery that heat promotes coagulation, and cold retards it. The entrance of air into the veins is, moreover, not now regarded with the same apprehension as of old,

* British Medical Journal, January 20, 1874.

† Gesellius. *Die Transfusion des Blutes*, p. 109. St. Petersburg, 1873.

for Oré has shown that, although a large quantity of air, forced into the femoral vein of a dog, will cause death in a few minutes, a small quantity may be introduced with impunity.*

3. Immediate transfusion from vein to vein has been revived and perfected by Dr. Aveling,† whose instrument as he very justly remarks forms an anastomosis between the circulatory system of the two individuals (they become Siamese twins for the time being). It consists of a rubber tube, about a foot long, with a bulb at the centre. Two canulæ are inserted into one of the larger brachial veins of the patient and of the blood-donor respectively—the former being directed toward the heart to discharge the blood, and the latter toward the periphery so as to receive it. There are no valves to the pump, for fear they might become centres for the formation of fibrinous clots; as a substitute for them, the finger and thumb of the left hand are made to compress the tube on one or the other side of the bulb, according as the bulb is expected to forward its contents toward the patient or to re-fill itself from the veins of the donor. Before being affixed to the canulæ, the tube is filled with warm



* Etudes sur la Transfusion du Sang. Paris, 1868.

† Obstetrical Journal of Great Britain, i. 5 and 6.

water, so that the first syringe-ful injected is pure water; this has not proved deleterious. This process is repeated as often as is thought desirable, the amount of blood transfused being gauged by the number of times the pump is emptied, its capacity being two drachms. This procedure of Dr. Aveling's has been seven times successfully applied in England, and it certainly offers more advantages than any of the others. These advantages are thus stated by the author:—

a. The exact quantity of blood required is taken from the donor, and no more.

b. No delay is caused by previous complicated manipulations of the blood, it being allowed to pass from vein to vein physiologically unchanged.

c. The chances of coagulation are small, because the blood is removed from the action of the living vessel for only a few seconds, and glides smoothly through the India-rubber tube, without being exposed to the air.

d. The apparatus is effective, simple, portable, inexpensive, and not likely to get out of order.

e. The operation is safe, uninterrupted, and a close imitation of nature.

4. Immediate transfusion from artery to vein is the oldest form, and was not, at the outset, very difficult, as the early operations were confined to animals. The direct transfusion of the arterial blood of a lamb into the veins of a human being is illustrated by the cases of Dr. Oscar Hasse,* already referred to. He claims that lamb's blood is preferable to human as being stronger and more stimulating. No one has yet been bold enough to recommend, or practise the opening of an important human artery for the purpose of arterial transfusion. The advantage of arterial over venous blood seems questionable, when we consider that the blood injected, before being distributed throughout the system, is oxygenated and decarbonized by its passage through the lungs, and is thus virtually arterial before it is called upon to perform its functions.

One point, and I have done. The quantity of blood transfused at one time should not exceed six or eight ounces, no matter how great has been the hæmorrhage, or how profound the prostration; larger quantities, though not always harmful, have, on one or two occasions, proved fatal, and at the autopsies the cause of the death has been attributed to plethora.

In conclusion, I would disclaim all desire or qualification for pursuing the study of this subject into the more abstruse physiological processes, but have merely sought to make out a rough chart for the use of future investigators.

DR. SIMBAT, in the *Thèses de Paris*, 1874, No. 73, shows the good effects which may be obtained by the use of Canquoin's paste in the treatment of fistula, and particularly in the use of anal and even urinary fistula. The chloride of zinc is employed with advantage in the treatment of fistula, in consequence of the granulating power it imparts to their walls; by reason of the facility with which it is applied; also in consequence of the absence of the accidents which might accompany wounds from cutting instruments; and, lastly, because it is more likely to prevent recurrence of the evil than other methods of operation.—*London Medical Record*.

* Vide Allgemeine Wiener Medizinische Zeitung for December, 1873.

Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By EDWARD S. WOOD, M.D.

[Concluded from page 12.]

TOXICOLOGY.

Analysis for Hydrochloric Acid in the Stomach.—The detection of free hydrochloric acid in the stomach is, as is well known, extremely difficult on account of the presence of combined chlorine, which exists normally in the tissues. The method proposed by L. Bouis (*Annales d'Hygiène*, April, 1874) for accomplishing this object consists in the formation of free chlorine by adding the binoxide of manganese, and gently heating. The chlorine, which is formed with free hydrochloric acid, and not with common salt or a chloride, is recognized by paper moistened with a solution of iodide of potassium and starch paste, which is colored blue by the chlorine. The absorption of chlorine by the organic matter sometimes prevents its detection in this way, hence another method is also recommended to be used in connection with the above. This process depends upon the fact that nitre heated with free hydrochloric acid will produce aqua regia, while if heated with common salt or a metallic chloride no such change will take place. The presence of the aqua regia is recognized by its solvent action on gold leaf, and from the amount of gold dissolved can be calculated the amount of free hydrochloric acid present. Chlorate of potassium acts in the same manner as the nitre. If the liquids are too dilute, they can be concentrated by evaporation on a water bath. By the last method the author has been able to recognize several centigrammes of hydrochloric acid in a large quantity of fluid.

Poisoning by Arseniuretted Hydrogen.—Nine cases of poisoning by this gas (three of which were fatal) are reported in detail in the *Vierteljahrsschrift für Gericht. Medecin* (April, 1873), by Dr. Frost. These cases add materially to our knowledge of poisoning by this form of arsenic, since there are so few cases on record.

These persons were poisoned by inhaling the gas which was set free in a new process for extracting silver from metallic lead. This process consisted in causing the silver to combine with zinc by introducing the latter metal into the melted lead. The compound of the zinc and silver rises as a scum to the surface and is removed. The silver is then obtained by treating this compound with hydrochloric acid, which forms the soluble chloride of zinc, and the insoluble chloride of silver, from which the metallic silver is obtained in the ordinary way. It was found necessary to constantly stir the mixture of metal and acid. The action of the acid upon the zinc forms nascent hydrogen, which will combine with arsenic, if any be present, just as in Marsh's apparatus. The arsenic in this case was derived not only from the lead and zinc (which frequently contain it as an impurity), but also from the hydrochloric acid, which, upon analysis, proved to contain a large quantity (0.027 per cent.).

Some of the workmen were affected on the first day, others not till the second. All who were engaged in the operation of stirring were affected.

Those who recovered were affected during the first two days with loss of appetite, nausea, dizziness, gaseous eructations, sweet taste in the mouth, tremendous pain in the limbs, yellow appearance of the skin and conjunctivæ, narcotic sleep, from which the patient could be roused quite easily, a sensation of weariness in the legs, bloody urine and bloody stools. On the third day, the patients were found in a deep sleep, with jaundice, high temperature, pulse 100 and more, difficult respiration, tongue dry, and covered with a white coat. On being roused, the patients complained of an intense pain in the head, a dirty taste in the mouth, great thirst, and excessive pain during micturition. The somnolent condition lasted about five days; the pain during micturition lasted three or four days, when the urine gradually became free from blood, and the jaundice began to disappear in four or five days. The patients were confined to their beds for two or three weeks, and could not resume work for several months.

In the fatal cases, the same sensations in the limbs were perceived, and there were, also, headache, nausea and vomiting, fluid stools, bloody urine, jaundice, small and rapid pulse (150-160), delirium and stupor, from which the patient could be roused, and death, which took place in one case in a little more than twenty-four hours after the commencement of the symptoms, in another in about two days, and in the third case in five and one-half days.

At the autopsy, a dirty yellow coloration was noticed in the skin and all of the tissues. In one case, a garlicky odor was evolved from the fluid which flowed from the mouth and nose; a thin layer of bloody serum covered the arachnoid; the large vessels contained a little dark blood; the kidneys were congested, and dark-red in color, and the bladder was empty, or nearly so. In one case, a patch of the mucous membrane of the stomach, about two inches square, upon the posterior surface had a dark-gray appearance, and was easily raised from the sub-mucous tissue.

Arsenic was detected in all of the tissues and fluids which were submitted to analysis, in the stomach, blood, fluid which flowed from the mouth, kidneys, heart, lungs and bronchi. Arsenic could not be detected in the urine of one of the patients who recovered.

Acute Poisoning by the Chromate of Lead.—Two fatal cases of acute poisoning by chrome yellow are reported in the *Vierteljahrsch. für Gericht. Medecin* (Jan., 1874), by Dr. von Liustow. These cases occurred in children, aged, respectively, 1 $\frac{3}{4}$ and 3 $\frac{1}{2}$ years, and the poisoning was caused by sucking an unknown number of small, yellow substances, which had been used for ornamenting pastry, and which consisted of gum tragacanth and chrome yellow. A piece measuring 13+5 millimetres yielded, on analysis, 0.278 grm. of gum tragacanth, and 0.0042 grm. of chromate of lead.

Chromate of lead, on account of its insolubility, has never been considered an active poison, and the fact that it is used so largely as a pigment for coloring not only ordinary substances, but also children's playthings, and even articles intended for food, such as confectionery, &c., renders these cases of more than ordinary interest. The extent of its use in confectionery can be seen by an examination of the report of analyses of confectionery, by H. B. Hill (*Mass. State Board of Health Report*, 1873, p. 390). Thus 77 samples, both white and colored, were analyzed; 21 were colored yellow, and in 17 of these the pigment

consisted entirely of chrome yellow, in 2 partially; of 12 specimens which were of an orange color, the pigment in 9 consisted entirely of the chromate of lead, and in 2 partially; 7 specimens of green were examined, 6 of which contained chrome yellow mixed with Prussian blue in five specimens, and with Scheele's green in the other. Of the 77 specimens examined, 36, therefore, contained the chromate of lead.

The symptoms of poisoning did not commence until several hours after the ingestion of the chrome yellow, which took place between 9 and 11 A.M. Both children were taken sick at the same time (between 2 and 3, P.M., of the same day) with vomiting, which lasted for several hours. The vomitus was yellow in color. There was great prostration and extreme thirst, but no diarrhoea and no pain. On the second day, both had a hot and red countenance, and were stupid. The younger, about twenty-four hours after the commencement of the symptoms, had a slight diarrhoea and convulsions, which continued until death, which took place in forty-eight hours. On the third day, an erythematous eruption appeared on the chest and abdomen of the elder. He was dull and stupid, and the temperature in the axilla was 39.5°C. On the fourth day, the pulse and respiration became irregular, the breath extremely fetid, stupor and unconsciousness came on, and the patient died five days after the ingestion of the poison.

After death, the mucous membrane of the stomach and duodenum was found swollen and loose, so that it could easily be raised from the sub-mucous tissue; it was inflamed, as was also that of the œsophagus, throat and larynx. In some places, the mucous membrane of the stomach and duodenum was entirely destroyed, and in one spot perforation had taken place, showing that the chrome yellow had a corrosive action. These appearances were probably not caused by the chromate of lead, as such, but by soluble compounds formed after the pigment had lain in the stomach some time, and had been decomposed.

Besides the above appearances, there were found also hyperæmia of the brain and its membranes, beginning fatty degeneration of the liver, commencing icterus, hyperæmia of the kidneys, suppurative pyelitis, and a softened spleen; conditions which are often seen after death from poisoning by other corrosive poisons.

The number of these yellow ornaments ingested by the children could not have been more than six, since only seven were given them to play with, and one was afterwards recovered. If each child had eaten three of these, the fatal dose was less than 0.01 grm., or between $\frac{1}{5}$ and $\frac{1}{6}$ of a grain of the chromate of lead.

The Action of Alkaloids on Albuminoid Substances.—By M. Y. Rossbach (*Neues Repert. für Pharm.*, xxii. 512-544).

Experiments were undertaken to explain the action of the alkaloids in diminishing the oxidation in the body, and it was found that, by the addition of neutral salts of the alkaloids (salts of quinia, strychnia, veratria, morphia and atropia were used) to solutions of egg albumen, the temperature required for the coagulation of the latter was lowered very much; that solutions so dilute that no turbidity was produced by boiling the aqueous solution became turbid at 59°-62° C., when a trace of a neutral salt of an alkaloid was present; that more turbidity

was produced by heating solutions of albumen if an alkaloid were present than with the simple aqueous solution; and that this altered coagulability is due to a true chemical combination taking place between the alkaloid and the albumen. The compound formed has the properties of an alkaloid. No combination takes place between 1° and 10° C.

The same results were produced with the blood serum, and the juice of muscle, and it is concluded that dissolved albumen is converted by the alkaloids into a less soluble substance, which is a compound of albumen with the alkaloid.

The alkaloids were also found to unite with hæmoglobin, but they do not prevent it from acting as an ozonizer. They do, however, seem to bind the oxygen more closely to the hæmoglobin, so that it is not given up so readily to other bodies.

Carbolic Acid.—By E. JACQUEMIN (*Journ. de Pharm. et de Chim.*, Feb. 1874).

On account of the many uses to which carbolic acid has been applied, and the increasing frequency of cases of poisoning, the author has made experiments to obtain easy methods for its isolation and detection.

In addition to the ordinary tests, the odor, coagulation of albumen, the formation of picric acid by means of nitric acid, the blue color formed with the sulphate of iron, &c., the author recommends another, which is far more delicate. It depends upon the formation of the erythrophenate of sodium (a blue substance which possesses very strong coloring power) by adding to the suspected fluid a drop of aniline and then chlorinated soda. A blue color is the result. This test will detect one drop of carbolic acid in two litres of water, a dilution of about one part in 66,000.

In separating the acid from the tissues and fluids, M. Jacquemin dispenses with the process of distillation as recommended by Dragen-dorff. The blood, for example, is treated with a two per cent. solution of sulphuric acid for an hour, strained, mixed with an equal volume of alcohol (90°), and filtered. To about 30 cubic centimetres of the filtrate, sodic carbonate is added to neutralize the sulphuric acid, then a part of a drop of aniline, and, finally, some chlorinated soda; this will mix irregularly with the fluid, and produce the blue color at the bottom of the vessel first; upon stirring, the whole fluid will become colored.

DUFOUR ON PREGNANCY WITH PERSISTENT HYMEN.—M. Dufour (*Archives de Toxicologie*, June, 1874) was consulted by a lady for some abdominal enlargement. On feeling the tumor, the movements of a child were apparent. On proceeding to make a vaginal examination, his finger was prevented from entering the passage by a complete circular band, which ocular demonstration proved to be the hymen. In leucorrhœa, the parts sometimes become much relaxed, and rendered thereby very dilatable, so that, under certain circumstances, the act of coitus may be completed without any rupture of the hymen. In this case, the patient said that she had never suffered from the "whites," and this was substantiated by the condition found.—*London Medical Record*.

Bibliographical Notices.

Annual Report of the City Registrar. Boston. 1874.

THE annual report of the City Registrar, with its complicated arrangement of births, marriages and deaths, has just been received. As this is the first report which has been published since the establishment of the Board of Health, its appearance has been anticipated with considerable curiosity by all interested in the sanitary welfare of the city.

The Board of Health was established just at the close of the year 1872, and the City Registrar's report for that year showed that the death-rate in the city was 30·5 in a thousand. When it is remembered that the average death-rate for the city for the ten years ending 1869 was only 23·7, the high rate reached in the year 1872 was of itself sufficient proof of the necessity for some change in the administration of the health department at City Hall.

In accordance with the demand for a change, as expressed by the ballots thrown by the voters in the municipal election of 1872, the Board of Health was created, and at once a change for the better took place. The death-rate for the year 1873 has fallen to 28·45 in a thousand. This rate is, of course, far from satisfactory, but it must be remembered that the epidemic of smallpox was not fairly under control until March, the deaths from that disease *alone* in January and February amounting to 266. Moreover, scarlet fever has prevailed in the city to a degree far in excess of that known for many years past, the number of deaths being 474, or an increase of 216 over the number recorded in the preceding year. It is also well known that when, owing to the occurrence of any epidemic like smallpox, cholera, &c., the death-rate of a city is largely increased, the return to its average ratio is gradual, owing, probably, to the general depreciated health of a large proportion of the population.

Taking into consideration, therefore, the prevalence of smallpox during a portion of the year, the presence also of what might almost be considered an epidemic of scarlet fever during a considerable part of the whole twelve months, and the generally depreciated sanitary condition of the inhabitants, as the result of the smallpox epidemic of 1872, it is not to be wondered at that Mr. Apollonio, at the close of his report, congratulates the city on the manifest improvement in the machinery employed to carry on the sanitary police department of the city, which he justly considers has been energetically and intelligently conducted.

It is a matter of regret, however, that the report should contain a number of important errors, as well as some serious misstatements. As an example of the former may be cited (p. 21) the phrase "more than *half*," which should read "more than *quarter*;" also (p. 53) the statement made that "in *two years* only (1853 and 1854) within the last 25 has the death-rate reached the present one (28·45)," which should read "in *three years*, &c.," since in the same paragraph the figures show that in 1872 the death-rate reached 30·5. As examples of misstatements or misrepresentations, unintentionally made, of course, but still calculated to mislead the reader, may be quoted the statement (p. 53) that scarlatina did not exist to any greater extent during the year (1873) than for a number of years past, while in another place (p. 38), the same writer states that this disease was *very prevalent*, the number of deaths being nearly *double* what it was in the preceding year. Again (p. 17), the total number of deaths each quarter of 1872 is omitted, the "percentages" being erroneously printed under the column-heading of "totals," and below occurs a statement which would convey a wrong impression to a hasty reader, namely, that "the mortality during the first quarter was nearly 6 per cent. greater than that of the same period of the preceding year." True, but why not state the reason, namely, that that quarter witnessed the decline of an epidemic (smallpox), which did not exist during the corresponding quarter of 1872? The rest of the year, the number of deaths was

less than in the rest of the year with which comparison is made, *the rate of mortality constantly decreasing from the time when the smallpox epidemic ceased.* Again (p. 14), he states that there were, leaving the deaths from smallpox entirely out of the question, 215 deaths in favor of the mortality of 1872 over that of 1873; but he forgets that, further on, he accounts for this by the statement (p. 38) that the deaths from scarlet fever numbered 216 more in 1873 than in 1872.

It is sincerely to be regretted that one who so evidently wishes to add his testimony to the good results which have followed the establishment of the Board of Health should, through errors of judgment and observation alone, have prevented the figures of his own report from being rightly interpreted. Had he simply presented those figures without any remarks or reasoning of his own, the subject of the high death-rate of the city would not have assumed the serious aspect alluded to by him in the general remarks with which he closes his report. It is only when he begins to reason falsely from erroneous statements that he becomes alarmed about the death-rate, which, owing to the careful management of the Board of Health has, in one year, been reduced from 30.6 to 28.45, and this, too, notwithstanding the existence of serious obstacles.

PERFORATION OF THE RECTUM BY FOREIGN BODIES, COMPLICATED WITH STRANGULATED HERNIA.—A policeman, aged 50, was admitted into St. Mary's Hospital, London, during the evening of March 30th, on account of a large, strangulated inguino-scrotal hernia. The hernia was reduced, with some trouble, but the abdominal distress and vomiting continued throughout the night, and by noon of the next day (31st) the ejected matter had assumed a stercoraceous character, and symptoms of severe peritonitis had supervened. At a loss to account for these distressing symptoms, a more careful examination was instituted, in the course of which, the surgeon, having inserted his finger into the rectum, struck a round mass, about the size of an apple; this he extracted, together with another similar mass, which proved to be pieces of flannel rolled into balls. Two other harder masses were then reached, which, having been brought away by means of enmata, turned out to be pieces of soap, each about three inches long, by two inches in breadth and depth. Soon after this, the patient became suddenly worse, complained of excruciating pain in the lower part of the abdomen, sank rapidly into a state of collapse, and died the same evening. At the necropsy, the abdominal cavity was found to contain a considerable quantity of sero-purulent fluid, and the intestines were glued together by recent lymph; the peritonitis had been general, but most intense in and near the hernial sac. On looking into the pelvis, a considerable amount of fecal matter was found extravasated through a round, ulcerated opening in the upper part of the rectum, while lower down was another slough, just on the point of giving way; the mucous membrane of the rectum was of a very dark color throughout, almost in a state of gangrene. The presence of these foreign bodies in the rectum was ultimately accounted for in the following way. When going out for night duty, on the evening of the 28th, he was suffering from an attack of diarrhoea, and, to stop this, he inserted the pieces of soap, being anxious not to soil his uniform; the soap proving ineffectual, he afterwards inserted the two pieces of flannel, which seem to have the desired effect, and to enable him to finish his allotted term of duty. The substances thus inserted he was unable to remove, and during the following day (the 29th) he had pain in the lower part of the abdomen, and vomited. The retching, excited by the presence of the foreign bodies in the rectum, appears to have caused an unusual amount of the intestine to be forced down into the hernial sac, which had existed for several years, and hence strangulation ensued. Peritonitis then set in from the double starting-point of the strangulated hernia and the inflamed and distended rectum. The perforation of the intestine, which was found to be about eight inches from the anus, was probably the result of ulceration, caused by one of the angles of the pieces of soap.—*British Medical Journal*, May 9, 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 9, 1874.

FROM the report of the committee having in charge the hospital Sunday movement, we learn that the subscriptions have exceeded somewhat the sum of \$13,000. Of this, about \$2,000 went to institutions specially designated by the contributors, and the balance was distributed by the committee on a plan which had in view the amount of "board and treatment given gratuitously by the hospitals during their last financial year." The amount of the subscription is perhaps not so large as the enthusiastic supporters of this movement might have hoped for, nor is it possible that the friends of the various hospitals and dispensaries which have been recipients of this charity will be perfectly satisfied with the plan adopted by the committee in distributing the fund. It is hardly to be expected that a project of this kind, totally new to this country, could at the outset have achieved a brilliant success. Still, we cannot think that even the strongest opposers of this movement will deny that the committee has, on the whole, performed a difficult task discreetly, as impartially as it was in their power to do, and in a manner creditable to its members.

The true measure of success in such a movement is not, however, to be found by reckoning the number of dollars actually contributed to the various recipients of this charity, but should be sought for rather by observing to what extent these charities have been brought to the notice of those classes of the community who hitherto have hardly had an opportunity even, it might be said, to acknowledge the debt of gratitude which many of them owe to our hospitals and dispensaries, or to contribute, even in a small way, toward their support. It places the claim of these institutions in a strong light before the public, and gives them, to a certain extent, a hold upon the popular sympathy which could not so easily be acquired in any other way.

It is interesting, in this connection, to read the comments of the English press upon the second anniversary of hospital Sunday in London, which was held on June 14th. So far as we are able to learn from latest advices, the result of this year's work has fallen far short of the liberal sum collected at the time the experiment was first tried in that city last year. It will be remembered that great dissatisfaction was expressed at that time at the manner in which the distribution of the money was made. Moreover, the movement, so far as London is concerned, does not appear to have the united support of the profession. It may be that there are difficulties attending

the management of a movement like this in great cities which are well nigh insuperable; but we do not think that this fact will detract in any degree from the general popularity which it now enjoys in England. Whether a charity of this kind can be transplanted successfully on to American soil is a question which the experience of the present year can hardly be said to have definitely settled. All honest efforts, however, to impress upon the mass of the community the importance of a hearty and general support of all charities of this class are well worth undertaking and should merit sympathy and respect from the profession.

THE University Court of the University of Edinburgh has just added (June 10, 1874) a department of public health to the departments in which degrees of science may be obtained in that famous seat of learning. This department has been created owing to the great demand which now exists in Great Britain for medical officers of health. It is of importance that there should be some way of ascertaining what members of the medical profession have specially studied those branches of medical science which particularly relate to public hygiene.

Candidates for graduation in science in the department of public health must be graduates either of a British University or of such foreign or colonial University as shall be recognized by the University Court of the University of Edinburgh. Candidates, before receiving their degree, must have passed two examinations with an interval of at least five months between each. The first examination will embrace subjects relating to chemistry, physics, sanitary law and vital statistics; the second will relate to medicine and practical sanitation.

After the lapse of one year, bachelors of science in the department of public health can take the degree of doctor in the same department, provided they have, in the meantime, been engaged in practical sanitation.

The University of Edinburgh is to be congratulated on taking such a decided step for the promotion of a more thorough knowledge, among members of the medical profession, of matters which relate to public hygiene. Practical sanitation has thus far been thought of too little importance, and the number of medical men is small who know anything of the duties of public health officers in relation to drainage, sewerage, outbreaks of epidemic, contagious and infectious diseases, while very few possess a thoroughly practical knowledge of general sanitary laws.

RECENT numbers of the *British Medical Journal* contain "The Hastings Prize Essay on the Pathology and Treatment of Ovarian Diseases, by Lawson Tait, F.R.C.S.," of which the following is an abstract:—

The essay begins with an account of the anatomy and physiology of the

ovary. The author holds that the gland has so much resemblance to the testicle in anatomical structure, physiological purpose, and pathological change, that we are justified in going back to the ancient notion that it is the *testis muliebris*. Even in their diseases, the testicle and ovary are closely analogous.

The most common diseases of the ovary are due to incomplete or perverted functions. As a rule, the gland is free from disease till after the age of puberty, when maturation of the ovum, and the possibility of its impregnation, occur. The chief external sign of this new function of the organism is the menstrual flow, but that this is no necessary part of the process is shown by the fact that some women have large families without ever having menstruated; that girls have become pregnant before the external signs of puberty have appeared, and that women sometimes become pregnant after the entire cessation of the monthly flow for years; so that the flow is an accompanying phenomenon, and not a cause or a result of the ovarian changes.

In healthy girls, the changes incident to puberty occur without suffering, usually at the fourteenth or fifteenth year; but in girls brought up in refinement, of delicate and strumous parentage, the moliminal change causes much trouble. As a rule, this seems to be due to the onset of menstruation, and the other signs of the change while the ovary is still in its infantile or incompletely developed condition; that is, it is forming incomplete cells, whose nuclei are incapable of fulfilling their functions, and the whole mechanism of ovulation is out of gear. In such cases, the menstrual flux comes on either at irregular times, or in insufficient quantity; or, if it comes regularly, it is over-abundant, and accompanied by severe ovarian pain. This arrest of development may be so complete that the ovaries may be said to be absent, though, in reality, the entire absence of the ovaries has been proved only in deformed fetuses. Women in whom there is extreme arrest of ovarian development often partake in some degree of the characters of the opposite sex, especially in the growth of straggling tufts of hair on the upper lip and on the chin.

A greater number of cases have the arrest at a later stage, and in them menstruation is established, after much difficulty and suffering, between 16 and 19 years of age, and, though it may last with fair regularity, but deficient quantity, for four or five years, it then ceases completely. In many cases, however, if marriage occurs during the time that menstruation is in action, and if the patient becomes pregnant, a cure may result.

The majority of cases of this kind are afflicted to a less degree, and it is a singular fact that many of them are found in women of splendid physical development, who, to any but one well acquainted with such cases, look the most likely to possess a capacity for procreation. In these women, menstruation is established later than the normal time by a few months or a year or two. They have, at first, irregular times and much pain, but soon the flow is established normally, as to time and quantity, and with but little suffering. If they marry, their menstrual career may run an ordinary course, but, if they remain single, they in a few years suffer much from dysmenorrhœa, and undergo a premature climacteric change. Any chronic disease, overwork, mental anxiety or sudden fright will check their menstruation for months or years, or, perhaps, forever.

In these slighter cases of ovarian dysmenorrhœa, the uterus is generally normally developed, and it is often so in some of the severest cases.

The symptoms are sufficiently constant and distinctive.

The treatment in the milder cases is generally successful in mitigating the sufferings, and often the ovary may be made, even in well-marked cases of arrested development, to fulfil its functions completely. Iron stands at the head of all therapeutic remedies. In ovarian dysmenorrhœa, it is best given in intermenstrual periods in small doses, one to five drops of the liquor ferri perchloridi, well diluted, and increased suddenly to fifteen or twenty for a day or two previous and during the menstrual flow; or, better still, is the substitution of a large dose of an iron and aloes pill. Hot hip-baths, and leeches to the perinæum at the period are often useful additions, with an oc-

casional blister to the sacrum. Other means than these are only allowable in very obstinate cases, after the patient has been married, or when there are indications of premature ovarian atrophy. Marriage is, perhaps, the most efficient remedy. Mechanical irritation of the uterus is a most powerful aid, but it is not free from risk, and is of most advantage where the uterus is chiefly at fault. The author recommends for this purpose the insertion of Simpson's galvanic pessary.

The ovaries are liable to certain displacements, which may give rise to many disagreeable symptoms without any actual disease of the glands. They may drop into the retro-uterine *cul-de-sac*, and there cause much trouble. In such displacements, pressure on the gland gives rise to the same sickness and faintness as pressure on the testicle produces in the male, and the passage of a hard motion will sometimes cause the most alarming symptoms.

There is a large class of ovarian diseases, due to altered hæmic nutrition of the gland, which clinical experience shows to be far more common than pathological investigation has yet given evidence of. They may be divided into three groups, differing, probably, only in degree of severity, except where acute ovaritis has a specific origin. They are:—

1. Ovarian hyperæmia.
2. Chronic ovaritis.
3. Acute ovaritis.

Ovarian hyperæmia is the result of an over-sufficient and generally precocious ovarian activity, and is, therefore, the converse of the condition already described under ovarian amenorrhœa and dysmenorrhœa. It is far from being a rare affection, and its history is well marked, the chief detail of which is menorrhagia. There is hyperæmia not only of the ovary but of the whole sexual apparatus; the menstrual loss produces anæmia—the most serious result. Marriage, even without resulting pregnancies, seems to modify the menorrhagia.

The treatment of these cases should be begun in the first stage, if possible. There is no cause of deteriorated general health so certain for a young woman as profuse menstruation due to ovarian hyperæmia. Iron seems to have no control over the spanæmic condition, and all ferruginous preparations should be avoided until the menorrhagia has ceased. If the patient is at school, her education should be interrupted. Musical exercises are especially hurtful. Absolute rest is an essential, and the patient should be confined to the prone position for a few days before, during and after the catamenial flow. Counter-irritation over the ovarian region just before the period is useful; but the most potent part of the treatment consists in the administration of ergot before and during the period, and of bromide of potassium continually during the intermenstrual time. A favorite formula is half a grain of Bonjean's ergotin made into a pill with sufficient lupulin. The bromide is given night and morning, after meals, in doses of from five to ten grains. Much harm is done to many girls by their rigid social seclusion in youth from the companionship of boys. It may be a coincidence, but the author has noticed the affection under discussion chiefly in girls who have had no brothers. Ovarian hyperæmia sometimes results from marriage, but only when the marital acts have been indulged in to excess.

Chronic ovaritis may be a later stage of moliminal hyperæmia. It may also result from acute ovaritis, but in the majority of cases it occurs from sexual excess and masturbation, or as a sequela of exanthemata and rheumatic fever, and, probably, of syphilis. It is not an uncommon disease, often unilateral—invariably so, in the essayist's experience, as the result of acute septic ovaritis. When the result of sexual excess or moliminal hyperæmia, it is generally symmetrical.

The symptoms are, that from the molimen the periods have been irregular, generally too frequent and too profuse. If the affection has a subsequent origin, there is a history of a gonorrhœal affection, or a puerperal accident leading to an acute inflammatory attack, or an over-indulgence in sexual congress. There is always a sense of weight and fulness in the ilio-hypogas-

tric region. To these are added sickness and nausea, sick headache, tenderness on pressure over one or both ovaries, always increased about the time of the catamenial flow. Tactile examination shows the tenderness to be ovarian, and in very many cases the ovaries are found to be enlarged and tender.

The treatment should consist of organic and systemic rest during the menstrual periods and the administration of ergot. Between times, counter-irritation in the inguinal region is advantageous. This should be continued for months. Bromide of potash, arsenic and cod-liver oil are also of use.

Acute ovaritis is the result of three conditions only:—1. Injury. 2. Gonorrhœal infection. 3. Septic poisoning in the parturient condition.

It is quite often impossible to make a vaginal examination in acute ovaritis without anæsthesia, and this had better be used at once, for it is important to distinguish between acute ovaritis and pelvic cellulitis. The treatment consists in leeches to the perineum, a blister over the ovary, diuretics and small, frequent doses of opium.

Hypertrophy of the ovaries occurs in two forms, as it affects the follicles of the gland or its fibrous tissue. Follicular hypertrophy probably forms a pathological feature of the ovarian hyperemia already described. The fibrous hyperplasia seems to be especially frequent in the better ranks of life. It is probably very often the result of chronic ovaritis of a kind which attacks less the peritoneal surface of the gland and more its internal structure. It results in follicular atrophy, or arrest of development of the proper ovarian cells, and cirrhosis of the trabeculæ.

A small class of cases can only be classed under ovarian neuralgia. They are characterized by acute lancinating pain in the region of the ovaries, coming on paroxysmally, without reference to the ovarian functions. The patients have no signs of physical disease, but are approaching the menopause. They have all been addicted to over-indulgence in drink. In connection with this affection, the author strongly urges the medical profession to oppose the wrong women are often allowed to do themselves by taking spirits to relieve ovarian and menstrual pain. No habit can be more pernicious.

(To be continued.)

A CASE OF CAMPHOR-POISONING.—Dr. Edward Pollak (*Wiener Medizinische Presse*) has been induced, by noticing the report of a case of camphor-poisoning in a late journal, to publish the details of a case of this rare form of poisoning which came under his own observation. On the night of the 9th of May, 1874, he was called to a patient, and upon his arrival found a woman lying upon her back in bed and tossing her hands and feet uneasily about. Her face was strikingly pale, the eyes bright and shining, there was a moderate tension of the entire muscular system, and in the lower extremities slight cramps. The skin was cool but dry, the pulse strong and full, and beating 88 in the minute. The temperature was 48.4°C. A strong smell of camphor was perceptible in the expired air, and also upon that which was expelled by eructation. The patient was in full possession of her faculties, had vomited some warm milk which had been given her, and spoke in a low tone of voice. She complained of violent ringing in her ears, giddiness, oppression of the chest, a sense of fulness in the stomach, and, from time to time, of her legs falling asleep.

When the cause of her being in this condition was inquired into, it was found that the patient had taken two tablespoonfuls of camphor mixed with brandy and water. A short time after swallowing the dose she became unconscious, and after a time vomited five or six times, and among the matters which were thrown off in this way were found numerous pieces of camphor, of the size of a pea or a grain of Indian corn. She had taken the camphor upon the advice of a female friend, with the object of avoiding any further

increase in her family, as she already had four children. Dr. Pollak treated the case with irritating enemata and wine and coffee, and ordered the application of cold compresses to the head, and in a short time the patient fell asleep. She broke into a profuse perspiration, and passed a considerable quantity of clear urine, which had a distinct odor of camphor. The perspiration had no odor except that usually noticed. The nausea and the subjective symptoms noted above speedily ceased; but for nearly three weeks the patient had more or less muscular weakness, giddiness and gastric disorder, all of which symptoms, however, speedily yielded to treatment. The camphor did not effect the object with which it had been taken, for in due time the patient, then in full health, became for the fifth time a mother.—*Philadelphia Medical Times*.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Tuesday and Saturday, June 23 and 27, 1874.)

OPERATIONS were performed in the following cases:—Tumor of lower jaw, Vesical Calculus, Nævus of Arm, Fistula in Ano (13 cases), Stricture of Urethra, Necrosis, Dislocation at Shoulder-joint. During the week, Sub-Mammary Abscess, Ruptured Perineum, Enlarged Tonsils.

Tumor of Lower-jaw.—A painless growth, of seven months' duration, in a man, fifty-five years old. It surrounded and involved the bone at the angle of the jaw, and made a firm swelling at that point, half the size of a hen's egg. A T-shaped incision was made through the skin and fascia overlying the tumor, the jaw exposed and sawed on each side. This section, including the tumor, was then removed by clearing its attachments to the floor of the mouth. The vessels were secured in the course of the dissection as they were cut.

Vesical Calculus.—in a boy thirteen years old, a native, and for a while resident, of Glasgow, Scotland. He had passed a small stone when two years old, and while living there. The only symptom had been occasional attacks of retention, lasting from twelve to twenty-four hours. Lithotomy by the lateral method. Stone flat and nearly round; of the mulberry variety; weight, 137 grains.

Nævus of Arm.—congenital, in a baby eight months old. It was of the size and shape of an almond, and situated at the bend of the elbow. Excised, and wound closed by silk sutures.

Fistula in Ano.—of three years' duration, in a man forty-six years old. The integument of the left buttock was riddled with fistulous openings, communicating with sinuses that extended upward by the side of and into the rectum. The patient was a teamster, and had been in the habit of riding on the hard, jolting seat of a cart. Sinuses laid open.

Stricture of Urethra (operation for extravasation of urine, reported in JOURNAL for June 25th).—Perineal section was performed, and the entrance to the bladder found by following the fistula through which the urine passed. Another stricture of the urethra in front of the section was dilated, and a large, silver catheter passed into the bladder and left.

Fistula in Ano.—in a man. Laid open.

Necrosis.—in a man thirty-two years old. Carious portions of the tibia removed by the spherical rasp.

Fistula in Ano.—in a man. Laid open.

Dislocation at the Shoulder-joint.—sub-coracoid and of five weeks' duration, in a man fifty-one years old; the elbow projected from the side of the chest at an angle of about 30°, and the head of the humerus could be felt just below the coracoid process. The adhesions at the shoulder were ruptured.

ed by rotating and circumducting the humerus. Horizontal traction was applied for a few seconds; at the moment it was discontinued, the elbow was brought down to the chest over the operator's forearm as a fulcrum, and the dislocation reduced.

Sub-mammary Abscess—following confinement five months since. Opened, and a large amount of pus evacuated.

Ruptured Perineum—in a woman 27 years old. It occurred during her first confinement, and involved the recto-vaginal septum, preventing her from retaining the contents of the bowels. The perineum was restored by dissecting off the membrane covering the border of the fissure and for a space of half an inch on each side of it; the raw surfaces were united by one deep and fifteen superficial wire sutures.

Enlarged Tonsils—in a child three years old, accompanied by unusually severe disturbance of respiration at night.

H. H. A. BEACH.

Correspondence.

THE POSITION OF DELEGATES TO STATE MEDICAL SOCIETIES.

MESSRS. EDITORS,—At the meeting of the Massachusetts Medical Society, holden at Boston on the 3d instant, I listened a few minutes to an outside discussion upon the subject of sending delegates from one State medical society to another. There were three or four members thus engaged in the subject, all strangers to the writer; and the particular point on which the discussion seemed to hinge was this—when and where did the system of sending accredited delegates from one State society to another begin? It is a matter of but little interest to the profession at large when and by whom the thing originated, so long as it forms an interesting and profitable medium, half professional and half social, by which the friendly relations of one society with another may be made more harmonizing, and their professional interests promoted. Now, I feel it to be a very easy task to ascertain the true status of the case.

I would not have troubled you in relation to the matter, had the gentlemen who were so warmly discussing the question treated me with a degree of professional courtesy. It was evident, from their conversation, that they knew but little about the matter themselves, and they very abruptly doubted my knowing anything about it.

I propose to say something I *do know* in relation to the subject, and then, if I do not correctly state the facts, the records of some one or all of the State societies, when compared, will put the case right.

I simply stated to them, after being for some little time a silent listener, that I was very sure that the system was first introduced by an act of the "Rhode Island Medical Society"; they all made answer abruptly, "they knew better than that," and I left them to themselves.

Since that time, I have looked over some of my old papers, and I found an original preamble and resolution, now lying before me, which was prepared and presented by the writer, and unanimously adopted by a State medical society; and, as I was secretary *pro tem.* of that meeting, will give it as it was written upon the records of the meeting; but, as I have scarcely seen or examined those records since, I am unable to say whether or not there is any alteration or abridgment as they now stand in the records, but I give them as written originally, prefaced in the records as follows:—

"At the semi-annual meeting of the Rhode Island Medical Society, holden at Providence, Oct. 2, 1861, the following preamble and resolution were unanimously adopted:—

"Whereas, It is desirable to cultivate the most friendly relation among our State medical societies, particularly in New England, and recognizing the appointment of delegates from one society to another as an important means of promoting such relations, therefore

"Resolved, That Dr. Edwin M. Snow, of Providence, be, and he is hereby appointed a delegate from this Society to attend the annual meeting of the Vermont Medical Society, to be held at Montpelier, on the 23d instant, and that delegates be appointed to other State medical societies.

Signed

D. HOMER BATCHELDER,

Sec. pro tem."

Now, what followed the passage of the above resolution? Why, there was at once a general response from nearly every New England State society to the sentiment embodied in the above preamble and resolution; and Dr. Edwin M. Snow, of Providence, was the first accredited representative from one State society to another, legitimately appointed, known to the writer.

It is to be recollected that the above action took place at the semi-annual meeting in October, 1861, and other delegates were elected to attend the annual meetings of all the New England State medical societies for the year 1862. Dr. Snow was, from unavoidable circumstances, unable to attend in person the annual meeting at Montpelier, Vt., in October, 1861, but sent his credentials in a letter, giving his reasons for non-attendance; but his letter and certificate were not presented until the semi-annual meeting was in session at St. Albans, June 18 and 19, 1862, at which meeting the Massachusetts Medical Society was also represented by Dr. Benj. E. Cotting.

A delegate—I think Dr. Sylvanus Clapp, of Pawtucket, R. I.—was the first elected to the Massachusetts Medical Society, and one, I think Dr. Usher Parsons, to the Connecticut Society, and the writer to the New Hampshire State Society at Concord. The meeting of the Massachusetts Medical Society was holden first of the series, and the delegate from Rhode Island attended, and was received with much favor, so much so that the Society responded at once by appointing a full corps of delegates to New England medical societies.

The meeting of the New Hampshire Medical Society was held on the 3d of June. I appeared there to represent the faculty of Rhode Island, and, to my astonishment, I met my old friend, Dr. Enos Hoyt, of Framingham, and Dr. C. A. Savory, of Lowell, who were to represent the faculty of Massachusetts, and we were all courteously received; while the Society reciprocated by the appointment of a full complement of delegates to the other State societies.

I was obliged to return to Providence the same night, in order to be at our own meeting on the 4th, at which meeting the first delegates from the Massachusetts Medical Society were present. They were Drs. Foster Hooper, D. H. Storer and Benjamin E. Cotting.

Thus commenced the system of professional interchange of civilities, which, it is to be hoped, will eventually lead to an established principle of united coöperation by all the State societies in behalf of "medical science."

The writer's opinion is, that in no instance, prior to 1861, has a "medical society" been represented in other similar bodies otherwise than by *special invitation* or *voluntary attendance*.

I have thus stated, rather in a hurried manner, from recollection only, when and where the first legitimate action was taken; and if, in doing so, I have erred in any one thing, I desire that it may be attributed to a faulty recollection rather than intention, hoping that some kind brother will volunteer to make the corrections.

With respect, I am yours fraternally,

D. HOMER BATCHELDER.

Danversport, June 14, 1874.

THE OBSTETRIC BINDER.

PAWTUCKET, R. I., June 15.

MESSRS. EDITORS,—I noticed in your last number (June 11th), a communication from Dr. E. T. Williams, of Roxbury, in which he recommends a twisted sheet tied together at the ends, and used in the following manner as a convenient and ready means of expediting labor: "Put the feet into the loop at the lower end and push, grasp the other end with the hands and pull."

About a year ago, I was attending a French woman in labor with her first child.

The labor had continued for several hours, when an old French woman, standing by, asked me if she might put the patient into the "*swing*." I did not know what she meant by a "*swing*," but gave my consent, curious to see what might be done. A rope, of sufficient length to pass below the patient's feet, was produced, the ends of which were tied to the bedposts above the head. A board to support the feet was placed in the loop below. Two napkins were placed upon either side of the rope, just below the hips, to protect the hands from the rough rope, and the patient, when "put into the swing," was directed to "push and pull."

I asked the old lady where she had learned to do this. She said it was the way the midwives did in the southern part of France.

Pleased with the seeming efficacy of this simple plan, I have resorted to it several times since, using, in place of the rope, a twisted sheet or a long towel in the same manner as Dr. Williams recommends.

I have often wondered why something about this has not been written in our works upon Obstetrics, as I have never seen anything about it in print, or heard it mentioned by any physician until I read the communication of Dr. Williams, to whom I cheerfully accord the credit of having first placed the use of this simple, but at the same time valuable, contrivance before the public. In several instances where it has seemed to me that the forceps would have to be resorted to, labor has been completed by the use of the *modified* "*swing*." In those cases where the expulsion of the placenta is tardy, I would advise the physician to try the above before resorting to either manual or instrumental interference.

Respectfully yours,

PHANUEL E. BISHOP, M.D.

BOSTON, June 16, 1874.

MESSRS. EDITORS,—Dr. Williams's "substitute for a binder" is, as he himself suggested, not a new thing. There is an apparatus, consisting of leather straps, made with padded handles and stirrups, which enables a woman to pull against herself most readily and comfortably. Some nurses have them to carry with them to any case of labor they may be called upon to attend.

H. T.

A CASE OF DISLOCATION OF THE SHOULDER.

HOOKSETT, N. H., June 22, 1874.

MESSRS. EDITORS,—I was called to see a woman, thirty-two years of age, of strong constitution, and in good health, for some trouble with her shoulder, and learned the following history in regard to it.

About fifteen years ago, her right shoulder was hurt, and kept her from work for two weeks. There were no signs of fracture or dislocation. Three months ago, by accident, she hurt the same shoulder, and experienced slight pain from it, but was not kept from ordinary house-work until about three weeks ago, when she began to lose freedom of motion, and felt numbness of hand and arm, slowly increasing, with slight pain and growing deformity of shoulder. There was no marked swelling during this time, nor when I first saw the patient.

Upon examination, I found a dislocation downwards, for which the history seemed to afford no direct or exciting cause. She could not tell any particular time when it happened, nor had she any idea how long her arm had been out of joint, or that it was out of joint at all.

I invited Dr. John Kimball, of Suncook, to see the case. He confirmed my diagnosis. We etherized the patient, and reduced the dislocation by manipulation; so easily, that the only proof of reduction was the absence of deformity. Proper bandages were applied, and, contrary to expectation, there resulted but little pain and no swelling. Five days after, upon removing the bandages, the use of the arm was fully restored.

ALVAH M. DAM, M.D.

Medical Miscellany.

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL discontinues its publication with the June number of the present year.

THE four members of the Massachusetts Medical Society who are reported to have offered resolutions, or to have been put on committees of the American Medical Association, were none of them present at the meeting.

SOOTHING APPLICATION IN HERPES ZOSTER.—

Rx. Collodion, ʒi.;

Morphiæ muriatis, gr. viij. M.

To be painted over the vesicles without breaking them open.—*Medical Times*.

COCULUS INDICUS.—The *London Pharmaceutical Journal* states that there are at present about twelve thousand pounds of this poisonous drug in the London market, and inasmuch as there is no legitimate use for the article, the inquiry is, for what purpose is it to be employed. It is intimated that the brewers might be able to throw some light on the subject.

FORMULA FOR HAY FEVER.—

Rx. Potassæ chloratis, gr. xx.;

Morphiæ sulphatis, gr. iv.;

Aquæ destillatæ, ʒij. M.

This mixture, to be used by means of the atomizer, is recommended by Dr. Hoover as giving immediate relief, and producing a complete cure within a few days.—*American Journal of the Medical Sciences*.

TOPICAL APPLICATION IN PAINFUL DENTITION.—

Rx. Syrup of tamarinds, ʒijss.;

Infusion of saffron, ʒij.;

Honey, ʒijss.;

Tinct. (essence) of vanilla, gtt. iv. M.

Rub gently over the gums with the finger or rag.

An application of a similar character is the following:—

Rx. Saffron (powdered), 4 to 6 grs.;

Honey, 2 to 3 drachms. M.

Glycerine may be substituted for the honey.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending June 27, 1874.

Boston, 135; Worcester, 11; Lowell, 15; Milford, 2; Chelsea, 4; Salem, 11; Lawrence, 9; Springfield, 12; Lynn, 7; Gloucester, 3; Fitchburg, 4; Newburyport, 8; Somerville, 11; Fall River, 18; Haverhill, 4; Holyoke, 2. Total, 256.

Prevalent Diseases.—Consumption, 40; pneumonia, 11; scarlatina, 10.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 4th, 143. Males, 73; females, 70. Accident, 5; apoplexy, 3; inflammation of the bowels, 4; disease of the bowels, 1; disease of the bladder, 1; bronchitis, 6; congestion of the brain, 3; disease of the brain, 5; cerebro-spinal meningitis, 1; cancer, 4; cholera infantum, 6; consumption, 21; convulsions, 8; debility, 5; diarrhœa, 5; drowned, 2; dysentery, 2; erysipelas, 1; typhoid fever, 5; gastritis, 3; disease of the heart, 5; malformation of the heart, 1; hæmorrhage, 1; intemperance, 2; disease of the kidneys, 6; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 14; marasmus, 4; measles, 1; old age, 3; paralysis, 2; pleurisy, 2; peritonitis, 2; puerperal disease, 1; sunstroke, 2; whooping cough, 3; unknown, 1.

Under 5 years of age, 54; between 5 and 20 years, 13; between 20 and 40 years, 32; between 40 and 60 years, 21; over 60 years, 23. Born in the United States, 77; Ireland, 45; other places, 21.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, JULY 16, 1874.

[No. 3.

Original Communications.

CONTRIBUTION TO THE PHYSIOLOGY OF THE
CORTEX CEREBRI.

By JAMES J. PUTNAM, M.D.

Lecturer at the Harvard Medical School on the Application of Electricity in
Nervous Diseases.

ALL those of the profession who interest themselves in physiological matters are already familiar with the experiments made first, some years ago, by Fritsch and Hitzig, of Berlin, and latterly repeated with greater elaboration by them, and by Ferrier, of London, which seem to prove that the cortex cerebri is not, as has been long believed, or at least not over its whole extent, incapable of responding to other stimuli besides those to whose influence it is regularly subjected.

On the contrary, it appears that when a weak current of electricity is applied to certain pretty sharply defined points which lie mainly in the convolutions bordering on and anterior to the fissures of Sylvius and Rolando, certain groups of muscles *on the opposite side, and sometimes on both sides* of the body, are thrown into contraction. The important bearing of these observations upon cerebral physiology and pathology has not failed to gain for them the close attention of neuropathologists everywhere, and especially of Dr. Hughlings Jackson, of London, who sees in them the verification of some clinical theories of his own. The observations themselves have received corroboration from all sides, but recently an important criticism has been made on them by Dr. Eugene Dupuy,* and by MM. Carville and Duret,† and, indeed, by Hitzig himself, in speaking of the experiments of Ferrier,‡ viz., that it is impossible, in using induction currents [Hitzig employs galvanic currents], to confine the irritation to limited districts of the cortex cerebri, and that the muscular contractions which attend, at least, Ferrier's method of irritation are due partly [Hitzig] or entirely [Dupuy] to the irritation of nervous masses which lie buried deeper.

The experiments here recorded were undertaken for the purpose of testing that point, but it may be well, before describing them, to examine a little the adverse testimony just referred to. The criticism of Hitzig was called out by the fact that Ferrier's centres, though in the main corresponding with his, occupied a larger area, and that their position, as observed in cats, differed from that in dogs more than the

* Examen de quelques points de la physiologie du cerveau. Paris. 1873.

† Gazette Médicale de Paris, Jan. 10, 1874. Vide also review of both in the Archives of Neurology and Electrology, Vol. I., No. 1, May, 1874.

‡ Berliner Klinische Wochenschrift, Feb. 9, 1874.

other differences between these animals would have led him to believe. Into the examination of these ground points we do not undertake to enter.

On the part of Carville and Duret, the criticism referred to was founded mainly upon the results of some experiments in which platinum needles, connected with a sensitive galvanometer, were introduced to different depths into the brains of animals, while the cortex was faradized in the usual manner; and they claim that the galvanometer needle was deviated, even when the distance between the platinum needles and the electrodes which furnished the current amounted to several inches. From these and other facts, to be referred to later, they drew, among others, these conclusions:—

1. That the cortical substance of the hemispheres is not excitable; it is insensible, and does not contain special motor centres.

2. That the effects produced by faradic currents are the effects produced by direct excitation of the corpora striata and crura cerebri, as the currents penetrate to these organs.

Also, that faradic currents, however feeble, are diffused over the surface of the brain, from one point to another.

Although the distinction is not made in their report, it is most probable that Carville and Duret used the primary, and not the secondary induction currents, contrary to Ferrier's habit, otherwise they would not have been able to detect their presence by the galvanometer, for the needle of this instrument is not deflected by the currents of short duration, and whose direction is constantly changing, such as are obtained from the secondary induction coil. This is in so far of importance that the secondary currents, owing to their greater tension [power of overcoming resistance], make their way less weakened by diffusion directly through the tissue separating the wire electrodes, for, although in traversing any conductor electricity diffuses itself to some extent over the whole mass, yet the degree to which it does so is inversely proportioned to its power of forcing a direct passage between the points of entrance and exit, and this power, thanks to the greater number of turns of wire of which the secondary coil is made up, belongs to the secondary induction current in greater degree than to the primary [extra] current.

Dupuy was led to much the same conclusions as those stated, finding, as did also Carville and Duret,* that "it is possible to excite, by the irritation of any point whatever of the cortex cerebri, contractions affecting, sometimes, a whole limb, which is generally the fore leg, and on the opposite side of the body;" also "that (while the irritation was being made as usual) a galvanoscopic frog-preparation was thrown into contraction when its nerve touched the cortex cerebri at a point far removed from that irritated," and, further,† that nerves at the base of the brain, which have been previously cut through to prevent the transmission from above of nervous excitation, can be excited electrically when applications are made to the surface of the brain in the usual manner, showing to how great an extent diffusion of electrical currents may take place.

That these results were obtained as stated we have no difficulty in believing, but we do not admit that they justify the conclusions drawn.

* As well as for other reasons, not discussed here because not bearing on the point under consideration.

† So stated at a recent meeting of the New York Society of Neurology and Electrology. Vide New York Medical Journal, July, 1874.

The real question plainly at stake is not, "can we produce effects due to irritation of distant parts while irritating definite points of the cortex cerebri," a question to which a simple consideration of the laws of electro-physics would permit an affirmative answer to be given, but, rather, "can we irritate the cortex cerebri to the extent necessary to produce the results claimed, *without* at the same time irritating deeper seated structures enough to call out their functional activity," and this possibility is not refuted by the experiments of Dupuy, or Carville and Duret, but receives affirmative support from our experiments, although few in number. These consisted in finding, which was always possible, the centres for definite, and nearly or quite uncomplicated, movements, and the minimal current-strength that was necessary to produce these movements, after which, with a sharp knife, we made a cut underneath these centres, leaving a good-sized but thin [by estimation 1 to 2 mm. thick] flap, which contained the suppositious centre. Having done this, we found that if we irritated as before, leaving the flap *in situ*, the movements before observed did not occur.

We then turned the flap up and irritated below it. The same current strength generally failed here, also, to produce the contractions, but they always appeared when the strength was slightly increased; not so, however, when the flap was turned back and adjusted to the electrodes applied on its surface as at first, repeated trials being attended with the same results. The irritations were made with the current from the secondary coil of a Du Bois-Reymond induction apparatus, run by a simple Léclanché cell, and the minimal current, which was found efficient, was strong enough to be felt distinctly by the tongue, scarcely, if at all, by the finger,* i. e. of about the strength that Ferrier also found usually sufficient.

The animals experimented upon, three in number, were dogs. The method was that usually followed, and no accidents occurred which materially interfered with the investigations. The movements obtained were, in the first experiment, extension of the opposite fore-leg; in the second, extension of opposite fore-paw, flexion of fore-leg at elbow, extension of leg at shoulder, partial extension of paw, these different phases following each other slowly, and the full result only occurring when the irritation had lasted a certain time; in the third, extension of both fore-paws, especially that of the opposite side, and occasional slight movements of hind legs; in the fourth, well-marked closure of the opposite eye, without any other movements, with the exception of occasional struggling.

Subsequent examination showed that the centres which we found agreed quite well with the corresponding ones found by Ferrier, though sometimes more closely, apparently, with those given by Hitzig.

One experiment, given somewhat in detail, will serve as a type of all:

June 6.—A middle-sized, healthy dog was etherized, a good portion of the skull laid bare from the median line down to the zygomatic arch on the right side, and a small piece of bone trephined out from the middle of this surface. The opening so made was enlarged with bone-forceps to the diameter of 1.5 cm., the dura mater removed, and the exposed portion of brain sketched. Muscular bleeding was checked by perchloride of iron; that from the membranes, which was considerable, by pressure made with sponges.

* In no case was it necessary to make the secondary coil overlap the primary, or even come within an inch of doing so.

Centres were sought for in vain over this surface, with irritations varying in strength from $D = 15.3$ cm. to $D = 12.9$ cm.* Only once all the muscles of the body were thrown into spasmodic contraction, which lasted after the cessation of the irritation, passing over into general struggling, which made more ether necessary.

The hole was then enlarged to about 3 cm. in diameter, and the search continued, but, at first, without success. This was probably because the unusually great tendency on the part of the animal to struggle violently, though it was probably not suffering much pain, obliged us to renew the etherization several times, whereas, as is known, it is only during incomplete etherization that the centres, or most of them, are irritable. At the 13th point of application, with the weak irritation $D = 14.8$ cm., we obtained *firm closure of left eye*, the animal being pretty well under ether, and quiet.

Cm.

With $D = 16$ $D = 15.3$

Result.

Same as before, but less well marked.

Ditto, better marked than last time.

(From this point on, the animal remained, at least at the moment of experimentation, very quiet. The ether was discontinued just enough to allow the eyes to be open, or partially so, at the proper moments.)

As superficial a section as possible was then made (not more than 1 mm. thick), but the flap left *in situ*.

Application made on top of flap,	$D = 14.8$	Result.
Application made on exposed		0
surface after reflection of flap,	$D = 14.8$	0
Application made on exposed		
surface after reflection of flap,	$D = 12.8$	Left eye firmly closed.
Application made on top of flap		0
after replacement,	$D = 12.9$	Closure of eye as at first.
Application made below flap again,	$D = 12.9$	0
“ “ on top of flap,	$D = 12.9$	Closure of eye as before.
“ “ below flap,	$D = 12.9$	Possibly closure of eye to slight degree.
“ “ on top of flap,	$D = 12.9$	Closure of eye as at first, though not so
“ “ below flap,	$D = 12.9$	strongly marked.
“ “ on top of flap,	$D = 12.9$	0

No other movements occurred at the moments of experimentation that could be regarded as due to the irritation of the brain, or that materially complicated the results stated.

These experiments were made at the physiological laboratory of the Harvard Medical College, with the kind assistance of Prof. H. P. Bowditch and Dr. Wm. James. Since they were made, the gratifying statement has come to our notice that essentially the same method has been employed by another observer, with the same results. (Braun, in *Eckhard's Beiträge zur Anatomie und Physiologie*, vii. 2; also *Centralblatt*, Berlin, June 13, 1874.

THREE CASES OF SPINA BIFIDA.†

By M. F. GAVIN, F.R.C.S.

Surgeon to St. Elizabeth's Hospital.

CONGENITAL fissure of the spine (*spina bifida*) is sufficiently rare to warrant me in bringing three cases of it under your notice, in two of which nothing was done, while the treatment used in the third case may have accelerated death. Late French and English writers on the

* D represents the distance between the similar ends of the two coils. $D = 0$ would indicate that the secondary coil was slipped entirely over the primary. When $D = 7.5$, the anterior end of the secondary coil was just level with the posterior end of the primary.

† Read before the South Boston Medical Club.

subject speak of this malformation as being very common, about as much so as hare-lip.

That this malformation is rare in this country, most will acknowledge, a fact fully corroborated by the published hospital reports of our city. The disease consists in an arrest of development of the laminae of one or more vertebrae, generally occurring in the lumbar or dorsal regions, rarely in the cervical; and attended with a hyper-secretion of cerebro-spinal fluid. The increase of cerebro-spinal fluid is not alone interesting in a surgical point, but also in a physiological one. Magendie, in his experiments upon dogs, showed that the pressure of the cerebro-spinal fluid was necessary to a healthy action of the nervous centres. No doubt this fluid gives support to the delicate bloodvessels of the pia mater, as well as protection to the spinal marrow. By some writers, this increased secretion of the spinal fluid is looked upon as the cause of the malformation, the want of ossification or coming together of the spinal arches being entirely due to the presence of a fluid tumor. If such was the cause, I doubt if we would ever have the malformation extend so high as the cervical region.

CASE I.—James D—, a strong, healthy fellow, aged about 17 years, born in Boston of healthy parents. At birth, tumor large as an English walnut over lower lumbar vertebrae and in the centre of back. Very soon after birth, it began to increase in size, especially so when the child cried. When six months old, was treated at Massachusetts General Hospital by having a ligature passed round the base of the tumor, showing that the tumor at that time was pedunculated, but after a few hours the ligature broke and was not reapplied, as the mother was averse to having so painful a method of treatment used; in fact, she declined further treatment. Till the child reached the age of eighteen months, the tumor continued to increase in size. When fourteen months old, the child walked, showing no signs of weakness, or paralysis of lower extremities.

Present condition—a tumor, about as large as a small cocoanut, soft and doughy to the touch, lobulated, broad base, over the lower lumbar vertebrae; pressure does not change its size, but causes intense pain extending to head, and a tendency to vomit. With exception of violent headache, which is generally caused by receiving a blow over tumor, health always exceedingly good. Height 5 feet, 6 inches; weight about 150 pounds.

CASE II.—Laura M—, aged about 4 years, born in Boston, of healthy parents. At birth, a tumor, about the size and shape of a small orange, was discovered in the lumbosacral region, and in the middle line of the body. This tumor began to grow in size very soon after birth, and has continued to do so since till at present, when it measures 15 inches in circumference; round, with a broad base, fluctuates, semi-transparent. When child cries or coughs there is a visible increase in size of the tumor, and partial paralysis of lower extremities. Since two years, health of child has been good, but previous to that time was "delicate." At present, child is as bright and intelligent as most children at her age. Since a year, the tumor increased two inches in circumference.

CASE III.—Daniel S—, a strong, healthy-looking child, of healthy parents, aged about six months. At birth, a small, purse-like swelling over spine, midway in the cervical region, and in the middle line of

the body. Soon after birth, swelling began to grow large, and has steadily increased in size till at present, when it hangs from the spine as a good-sized baseball. On pressure, fluid is readily detected; when placed in a strong light, it becomes translucent; over the centre, is a cicatrix, discolored, and running in the long axis of the tumor; pressure causes the child to cry bitterly. The fontanelles were closed; but of that I made no note. The child is well nourished, and large for its age; two lower incisors are through; perhaps, less bright than children of this age; never has held up its head, nor does he now make any effort to do so. The spinous processes of the vertebræ under the tumor were not felt. The parents were anxious to have something done, feeling that the child could not live long in his present condition. In Gross's Surgery, there is a picture of spina bifida, in every respect like the one just described. After explaining to the parents the unpromising nature of the tumor, the great risk involved in any sort of treatment, and feeling that unless something was done the skin over the tumor would soon give way and convulsions follow, I decided on first trying the effect of pressure by clamp, made for the purpose; in fact any other sort of pressure was out of the question, as it could not be kept in position.

Aug. 30th.—Tumor tapped with Dieulafoy's aspirator, care being taken to insert the instrument in the side of tumor. Eight ounces of clear, watery-looking fluid withdrawn, leaving nothing but a pendulous mass, through which the deficiency of spinous processes could be felt. The clamp was now used, but had to be removed after a few hours, owing to the suffering caused by its use. No ill effects followed; the child slept well, and nursed as usual. The tumor was not long in refilling, and about the middle of September the aspirator was again used, when seven ounces of the same kind of fluid was withdrawn.

Oct. 4th.—Tumor nine inches in circumference. Aspirator used; six ounces withdrawn, and pressure used with a new clamp, but failed to do any good, when pressure with a thick compress and roller bandage was tried. For a few days, child continued restless and feverish.

Oct. 15th.—Aspirator used; nine ounces withdrawn. In nine days, tumor as large as ever, when parents declined to have further treatment used.

Five months later, I saw the child again, when tumor measured twelve inches in circumference, and the skin covering the lower part was ulcerated. Aspirator used; ten ounces withdrawn, and pressure applied. I did not see the child afterward, but learned of his death, which occurred two days after the aspirator was last used. The parents declined to have a *post-mortem* examination, or even allow me to see the child. I am indebted to Prof. James C. White for analysing the contents of the tumor. "The fluid was identical with the serous transudation occurring in the cerebro-spinal cavities—transparent, colorless, alkaline. Specific gravity 1.003. No sediment." Every time the aspirator was used the fluid withdrawn was tested for sugar, but none was found. In a little more than a month, thirty ounces, or about two pounds of cerebro-spinal fluid was withdrawn without producing any apparent effect. In Sir Astley Cooper's case, that of a little child, aged ten weeks, 23½ ounces of cerebro-spinal fluid was withdrawn in one month and five days. I was anxious to find the presence of sugar in the fluid, as it has been spoken of by French writers, and used as a

help in differential diagnosis ; but the most careful examination, both by the yeast and Trommer's test, failed to find any. As in all other diseases, it is important to make a correct diagnosis, for we find* mistakes have been made. The diseases likely to be mistaken for spina bifida are the so-called false spina bifida, where the contents of the tumor does not communicate with the arachnoid cavity, congenital, fatty or cystic tumors and congenital sacral tumors, all of which have been mistaken for true spina bifida. The diagnosis of true and false spina bifida, when the latter is cystic, must at all times be difficult in the absence of some of the fluid contents of the tumor. Congenital, fatty tumors, like all fatty tumors, are lobulated, and the skin can be pushed up and moved over the tumor. Most surgical writers lay great stress on the want of the spinous processes as a means of diagnosis. In exceptional cases, we may be able to detect the cleft in the spine ; but, ordinarily, it is not possible to reach the spinous processes, allowing they were present, through a large fluid tumor. Where false spina bifida is of a cystic nature, and communicates with the spinal canal, I know of no other means of diagnosis than a chemical examination of the fluid. In a case of this nature, practically speaking, accurate diagnosis is of little moment, as the treatment is the same in both cases. In the first case mentioned, there can be little doubt about the diagnosis. The mother was told at the General Hospital that the child would be likely to have convulsions, while the treatment used is a proof ; in no other disease was it likely to have a ligature used. At the present time, tumor might be classed with false spina bifida ; that is, there is no communication between the sac and spinal membranes. The second case offered better chance of treatment than the third case, inasmuch as compression could be applied after the aspirator had been used. I recommended to have the tumor evacuated and compression applied for the following reasons : the steady increase of size of the tumor, with a thinning of the skin, and the partial paralysis growing worse. The parents were unwilling to have anything done that involved a risk of life.

In the third case, there could be no question of diagnosis. Treatment in the first case, a padded truss to protect the tumor from injury. Second case, treatment declined. The treatment used in the third case was that which involved the smallest risk to life, and with Dieulafoy's aspirator the risk was small compared with a common trocar. I believe this is the first case of spina bifida where the aspirator has been used. Reasons for operating : first, the tumor was growing large, causing great inconvenience to the little sufferer, and if allowed to go on the skin must burst, convulsions and death would likely follow ; second, the transparency of the tumor showed the contents of the sac to be fluid, and not the spinal cord or nerves, a condition favorable for treatment. Cooper, Erichsen and others recommend this form of operation, before resorting to more severe measures.

SMALLPOX IN ENGLAND.—It is stated that smallpox, in its most virulent and fatal form, has been prevailing for some months in Birmingham, the great central town of England, no fewer than 289 deaths having been already recorded.

* Mr. Pollock records a case where a fatty tumor was mistaken for true spina bifida.

Progress in Medicine.

REPORT ON PHYSIOLOGY.

By H. P. BOWDITCH, M.D.

EFFECT OF APNŒA ON CONVULSIONS.

FILEHNE (*Reichert and Du Bois Reymond's Archiv*, 1873, p. 361) reports experiments made under Munk's directions to determine the effect of forced artificial respiration on the normal respiratory movements and on the convulsions produced by strychnia. The author confirms the conclusions of Rosenthal, and rejects those of Brown-Séquard (*Archives de Physiologie*, iv. p. 204). For a better comprehension of the subject, a brief account of the experiments and conclusions of the latter observer may be given. Having found that in guinea pigs, rendered artificially epileptic, the attacks could be cut short by directing a stream of carbonic acid forcibly against the mucous membrane of the pharynx, Brown-Séquard was led to suppose that the arrest of the movements of respiration (apnœa) and of strychnia convulsions, which is effected by forced artificial respiration, is due, not to a superoxygenation of the blood, as Rosenthal supposed, but to an inhibitory action of the vagus, and perhaps other nerves, on the nervous centres of the medulla and cord. Three series of experiments lent force to this hypothesis. In the first place, it was found, that after section of the cervical cord or the vagus nerves, forced artificial respiration produced neither apnœa nor arrest of strychnia convulsions. Secondly, injection of carbonic acid from below upwards through the larynx (the animal breathing through a tracheal canula) caused immediate arrest of respiration. Thirdly, injection of carbonic acid into the lungs caused immediate cessation of the convulsions due to loss of blood.

These experiments of Brown-Séquard, Filehne repeats and criticizes. He finds, in the first place, that neither the section of the cervical cord nor that of the vagus nerves prevents the production of apnœa by artificial respiration. It does not occur so readily as under normal conditions, owing, as Filehne supposes, to disturbances of the circulation, caused by these nervous lesions. He finds, too, that strychnia convulsions are stopped by artificial respiration, as described by Rosenthal, and that the fatal effects of the poison can thus be warded off. In this respect, his observations are at variance with those of Rossbach (*Centralblatt für die medicinischen Wissenschaften*, 1873, p. 369), who denies that artificial respiration has any effect upon the intensity or the duration of the strychnia convulsions. This discrepancy Filehne explains by supposing that Rossbach did not use animals sufficiently alike in all respects for making comparative experiments.

In regard to the effect of section of the vagi on this saving influence of forced respiration in strychnia poisoning, Filehne finds that a dose of strychnia, the effects of which can be warded off by forced respiration, becomes fatal on section of the vagi, but he also finds that an animal poisoned with strychnia and with vagi cut may be saved from death by forced respiration, while an animal similarly treated, but left to breathe naturally, dies in violent tetanus. He therefore concludes that the effect of section of the vagi in rendering fatal a non-fatal dose

of strychnia is due to a disturbance of the circulation which prevents the thorough oxygenation of the blood in spite of the vigorous artificial respiration. The fact that the first appearance of tetanus in an animal thus treated coincides with a sensible diminution in the force of the heart's contractions, is an argument in favor of this view.

Filehne has also studied the effect of a stream of carbonic acid on the nasal and pharyngeal mucous membrane, and finds that when the stream is so directed that the gas comes in contact with the mucous membrane of the nostrils an arrest of the respiratory movements at once takes place, whereas no such effect is produced when the irritation is applied to the trachea, larynx or fauces. This is a reflex, inhibitory phenomenon, the nature of which has been carefully studied by Kratschmer (*Wiener Sitzungsberichte*, Band 62, abth. ii. June 17, 1870), who has recognized the trigeminal nerve as the channel through which the inhibitory influence is conveyed. Filehne and Brown-Séquard agree, therefore, in regarding the arrest of respiration by a stream of carbonic acid directed into the air passages as an inhibitory phenomenon, though the latter observer does not, like the former, limit the surface, the irritation of which produces this effect, to the nasal mucous membrane.

Brown-Séquard's error is, according to Filehne, in confounding the stoppage of respiration thus produced with true apnoea, which depends upon superoxygenation of the blood. Filehne finally makes experiments to determine whether the irritation by carbonic acid can produce not only stoppage of respiration, but also, as Brown-Séquard maintains, arrest of strychnia convulsions, and of artificially produced epilepsy.

By the most carefully conducted experiments, he fails to convince himself that the stream of carbonic acid has any effect in shortening the convulsions either of strychnia or epilepsy. How such discordant results are to be reconciled is not easy to see, but Filehne suggests that, owing to the short and irregular duration ($\frac{1}{4}$ '-1') of the artificial epileptic attacks, one can readily deceive one's self as to the effect of applications made to arrest them.

In this connection must also be mentioned the experiments of Ananoff (*Centralblatt für die medicinischen Wissenschaften*, 6 June, 1874) on the effect of oxygen on increased reflex irritability.

This observer gave a fatal dose of strychnia to two rabbits, and allowed one of them to breathe oxygen, while the other breathed atmospheric air. The latter died in convulsions seven minutes after the administration of the poison, while the former had no convulsions whatever as long as the respiration of oxygen was kept up (twenty-eight minutes), and finally died with only slight spasms ten minutes after the oxygen had been removed. Inasmuch as the oxygen was conducted from the gasometer to the lungs of the animal under a certain pressure, it was necessary to determine whether atmospheric air, breathed under the same pressure, would not produce the same effect. For this purpose, two rabbits were poisoned with strychnia, as before, and one of them made to breathe air coming from the gasometer under pressure, while the other breathed under natural conditions. In the former, tetanic spasms were produced by external irritation seven minutes, and death followed twenty minutes after the administration of the poison, while the latter died at the end of six minutes.

A third experiment was made to determine the difference between

the effect of oxygen and that of an increased amount of atmospheric air. Of two rabbits, both poisoned with strychnia, it was found that the one which breathed oxygen remained free from spasms as long as the oxygen inhalation was kept up, while the one which breathed atmospheric air under pressure had convulsions in seven, and died in twenty, minutes. From this, it seems evident that it is really the presence of oxygen in the blood which prevents the occurrence of strychnia convulsions, and from Rosenthal's experiments it is clear that the amount of oxygen necessary to produce this effect can be forced into the blood by artificial respiration without having recourse to the inhalation of pure oxygen, though in the experiments of Ananoff the effect of breathing condensed air was only to retard and not to prevent the convulsive action of the poison.

MUSCLES.

Ranvier (*Archives de Physiologie*, vi. p. 5) calls attention to the difference in appearance and physiological properties presented by the striped muscles of the same animal. He finds, for instance, that in the leg of the rabbit the semi-tendinosus, the adductor brevis, the quadratus femoris and the soleus have a redder color than the rectus, the vasti, the adductor magnus, the biceps, the gemelli, &c., which, in contrast to the others, are denominated "pale muscles." This difference in color is independent of the amount of blood which the muscles contain, for it persists after the vessels of the limb have been washed out with artificial serum. Corresponding to this difference in appearance is a difference in the nature of the contraction. The red muscle contracts much less promptly than the pale muscle under the influence of an electrical stimulus, and relaxes much more slowly when the stimulus is removed. The period of latent irritation and the duration of the single muscular impulse or shock* is from four to six times greater in the red than in the pale muscles, while the rapidity of stimulation which is sufficient to produce complete tetanus is correspondingly less. These differences are equally manifest, whether the irritation is applied to the nerve or directly to the muscle.

Histological differences are also noticed in the two sorts of muscles. In the pale muscles, the transverse striation is much more distinct than the longitudinal, while in the red muscles the longitudinal striation is very well marked, and the transverse striæ are not straight, as in the pale muscles, but formed of broken lines. Nuclei are much more abundant in the red than in the pale fibres. Muscles presenting these same differences are also found in various species of fish.

Ranvier has also recently reported to the Société de Biologie (*Révue Scientifique*, 6 June, 1874) a very ingenious method of studying the transverse striæ of muscles. The method consists in using a histological preparation of a striped muscle for the production of a diffraction spectrum, the striæ of the muscle producing the same effect upon the light as the fine lines ruled on glass, which are usually employed for this purpose. The spectrum thus produced is found to undergo no change when the muscle contracts, proving that the transverse striæ of muscles do not disappear in contraction, as has been sometimes maintained.

[To be concluded.]

* It would, perhaps, be well to adopt the word "jerk," as the equivalent of the French "secousse" or the German "zuckung," to express the contraction of a muscle in consequence of a single instantaneous irritation.

Bibliographical Notices.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D. Fifth American from the Sixth Revised and Enlarged English Edition. Philadelphia: Henry C. Lea. 1874.

ANYTHING from the pen of Dr. West is sure to meet with a hearty welcome from all those interested in the study of children's diseases. The author, wisely, we think, preserves the old form of his work, for there is a great charm in the conversational and friendly way in which he presents the different subjects under the form of lectures. The universal respect with which all his teachings are received needs no better illustration than the fact that his book has passed through five editions in this country, through four in German, and that, while it has also been translated into Italian, Danish, Dutch and Russian, a French translation is now in press.

We naturally turn first to see what changes time may have made in the author's ideas of treatment, which have not always seemed to keep pace with those of the more rational and modern school.

That his treatment, more especially of acute diseases, has changed, we find ample evidence in his later writings, though we will probably not agree with him as to the causes to which he attributes this change.

In speaking of depletion, p. 29, he says:—

"Changes in medical opinion, such as have taken place within the past twenty years, influence one's conduct by slow and almost imperceptible degrees, and I find that my practice now differs much from what it was a quarter of a century ago; that I deplete less than I did, that I have less faith in mercury, that I employ antimony more rarely, that I have more confidence in nature's powers, less reliance on my own resources. And yet I am unwilling to believe that all my former observations were erroneous, and that my old faith was entirely misplaced; but, unhappily, I have no longer the leisure to test the value of these changes as I could wish; while the peculiarities of consultation practice in a large city, though they may sharpen one's perception and increase one's promptness in action, are anything but favorable to scientific investigation, or to accurate reasoning."

Again, in his lecture on the treatment of bronchitis, we find, p. 277: "in reconsidering the rules which I shall lay down for your guidance, I am struck by the different conclusions to which more than thirty years of the practice of my profession have led me from those which I adopted at the onset of my career. It is, I believe, but rarely, at the present day, that depletion is indicated in bronchitis or pneumonia; and tartar emetic needs to be given more sparingly than in former years, and with less certainty in cutting short at its very onset the inflammatory action. And yet, when looking back on the records of cases where I abstracted blood freely, and gave antimony in large doses, I cannot admit that my practice then was a mistaken one, that the recoveries which then took place were the result of accident, or that, in counseling now a different course, I am merely following the fashion or the prejudice of the age." "You will now understand, gentlemen, why it was, when I told you at the beginning of this lecture, that the necessity, nay, even the utility of depletion in pneumonia did not seem to me well established, that I made a point of adding *just at present*. I did so, because it so happens that now for the past several years we are in the midst of an epidemic constitution, in which diseases do not require this remedy, though, formerly, they did require it and though in the course of time they will, no doubt, stand in need of it again."

The chapter upon "Active Congestion of the Brain" has been largely rewritten and altered. In former editions, the author has been used to class the symptoms of violent cerebral disturbance, which sometimes usher in the eruptive fevers and even prove fatal before the rash has had time to show itself, among those most strikingly illustrating active cerebral congestion,

whereas now this opinion has been given up in common with other of the best authorities and these symptoms regarded as partly dependent on the high temperature of the blood. The symptoms of sunstroke are now classed under the same category. The treatment has likewise undergone a change, with regard to which he now says: "While, therefore, I would not say that depletion ought never to be practised, and while, if hydropathy failed, I should still have recourse to it, I no longer employ, nor should I advise, that free depletion, to which, in ignorance of these other means, I was accustomed to have recourse."

We find in this edition the old name of "acute hydrocephalus" discarded, tubercular meningitis being substituted for it. The subject of the ophthalmoscope as an aid to diagnosis of diseases of the brain receives attention in this lecture. It is regarded as adding but little to the knowledge which we derive from other sources in the acute disorders of the brain; but further on, when speaking of the diagnosis of tubercle of the brain he says: "I need not remind you of the value of the ophthalmoscope in doubtful cases, a value which additional experience in its use will probably tend to increase. The appearances which it discovers are such, indeed, as one might beforehand expect to find, namely, a state of congestion of the optic disk, which is swollen, its outline indistinct, its surface often dotted with tiny ecchymoses, the arteries pale, and diminished in size, whilst numerous veins which were before invisible may now be seen enlarged, full, tortuous or even varicose. This appearance is seldom wanting in cerebral tumors of any size, and is almost invariably present in tumors of the cerebellum, which is, as you will recollect, the favorite seat of the tubercular deposit. In doubtful cases, I always avail myself of the special knowledge of some colleague, expert in the use of the instrument. I advise you to learn to use it for yourselves."

We would naturally not look for anything new in the treatment of so fatal a disease as tubercular meningitis, but in this chapter are mentioned three remedies, which appear in this edition for the first time, viz., tincture of aconite, "from which in cases of general febrile disturbance, accompanied with excitement of the brain, he has seen much good result," hydrate of chloral, and bromide of potassium. Other changes and additions since the edition previous to the present one are not very numerous. The lectures upon abdominal tumors and upon diseases of the kidney are entirely re-written and very much enlarged, as is also the subject of paracentesis thoracis. Among the diseases of the respiratory organs, the subject of infantile asphyxia receives attention in this edition.

The statistics of cases from his own practice have become much larger. The prescriptions scattered through the book have been made up with care and skill for rendering them palatable, a certainly no trivial accomplishment.

The book is printed in the well-known form of American medical works, with the ugly white cover. The type is excellent, and there are remarkably few typographical errors.

Ligation of Arteries. By Dr. L. H. FARABEUF. Translated by JOHN D. JACKSON, M.D., of Danville, Kentucky. Philadelphia: J. B. Lippincott & Co. 1874.

THE want of a good manual on operative surgery, adapted for dissecting-room use, has long been felt, not only by those whose duty it is to give instruction in this department of surgery, but also by the students who look in vain in ordinary text-books for the careful and minute directions which they have listened to in the lecture-room. It is to meet, in part at least, such a want as this that Dr. Jackson has translated Farabeuf's "Ligation of Arteries." The translator has made a good selection for this purpose, for the author's position, as one of the rising surgeons, and the most prominent teacher of this branch in Paris, gives a tinge of authority and originality to such a book, which could not otherwise easily be infused into it. The first part of this book is devoted to generalities: the "description of the ligation of an artery in its continuity," on the surface of stumps, and also to some of the other means employed to obliterate arteries. We find here a great deal

of useful and interesting matter, illustrated, as, indeed, the whole book is, with original wood-cuts, which, considering the small space they are necessarily crowded into, serve more than usually well to illustrate the special points for which they were designed. Such a cut as that which represents the artery and its veins covered by the cellular sheath fastened to a piece of cork, a pair of forceps lifting up a transverse fold of the sheath as should be done when laying bare the artery, well illustrates this point, and helps to impress upon the student the necessity for careful attention to detail, delicate manipulation and neat workmanship, not the least important of the advantages to be derived from a course on operative surgery. Students are but too apt to feel that, provided the required vessel has been found and secured, their task has been satisfactorily accomplished, and are prone to lose sight of the advantages to be gained by a study of the various steps of these operations, the manner in which they are performed and the skill thus acquired in the use of the knife. The importance of this has, we think, been fully realized by the author. Part second is devoted to "special ligations." The difficulties of this task have, on the whole, been fairly overcome, although, occasionally, the description becomes somewhat obscure, for which the translator is in part only to blame, although at many points the French idiom becomes somewhat uncomfortably apparent. We regret to see that the translator has employed such terms as "ligation" and "ligate," the somewhat pedantic substitutes for "ligature" and "tie," which we should be glad to see restored to their old place in our American surgical literature. The publishers have done their work well. The size and binding of the book are such that it can easily be slipped into the surgeon's bag or the student's pocket.

Observations on the Pathology and Treatment of Cholera; the Result of Forty Years' Experience. By JOHN MURRAY, M.D., Inspector-General of Hospitals, late of Bengal. London: Smith, Elder & Co. 1874. 16mo. Pp. 58.

WE have read with interest this little book, which will commend itself to every one who desires to know the treatment most likely to be of use in this terrible disease. The author does not believe in any specific treatment, but asserts that a very large proportion of cases can be saved by prompt and appropriate measures. As the result of many years' study of the disease during many epidemics in India, his suggestions are entitled to our respect. We have not found anything new in the book, but the descriptions of the symptoms are so clear, and the directions for treatment are so judicious, that we do not hesitate to recommend it to all who are likely to have cases of cholera to treat, as a most valuable guide.

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Hints in Obstetric Procedure. The Annual Address before the Philadelphia County Medical Society, by William B. Atkinson, M.D. 1874.

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WE are gratified to learn that the prospect is very promising for the long-needed extension of building accommodations at the City Hospital. Year after year, the Trustees have pointed out in their annual report the fact that more room was absolutely needed to fulfil the demand made on the hospital. The annexation of extensive territory to the city has made the need still more emphatically felt, and the emergency was so plain and so imperative that a liberal appropriation was made by the City Council the present year to cover the necessary expenditure.

The building plans, which have been adopted by the Trustees of the Hospital, are cordially approved by expert judges (physicians and others) who have examined them. They contemplate the erection of buildings which shall combine the largest utility with the wisest and most recent sanitary improvements in hospital-construction, and which, withal, shall not be devoid of the architectural beauty characteristic of the present structure. With new, single-ward pavilions, of improved construction, with a large, well-lighted surgical amphitheatre, with an increased number of distinct wards, wherein particular attention will be paid to ventilation, with added facilities for the treatment of special cases, ophthalmic, aural, the diseases of women and of children, and with new arrangements for internal administration, we predict that the Boston City Hospital will inevitably fill a high place among the hospitals of the country, both as regards the benefits extended to the needy sick of the city, and as a field for medical and surgical observation. We sincerely trust that nothing will occur to prevent the speedy realization of plans which have been so carefully and so admirably matured.

THE recent "hearing" given at the City Hall on the subject of a public park renews the hopes of those who have, for a long time, patiently waited for a second movement on the part of the city in this direction. We think his honor, the mayor, who, we are glad to learn, is warmly interested in the success of this undertaking, acted wisely in giving at the outset an opportunity for a free expression of popular opinion on the subject. Although there seems to exist, at the present time, but little doubt in the minds of the majority of our citizens as to the advisability of public grounds, laid out on a scale similar to that

which exists at present in nearly all of our large cities, the great diversity of opinion brought out on the occasion alluded to, as to the situation and extent of the park, leads one to fear that it will prove a matter of considerable difficulty to unite upon any one plan which will meet with general satisfaction—an obstacle which, undoubtedly, was chiefly instrumental in defeating the project a year or two ago. It is a good omen, however, that the matter has been placed this year in the hands of a committee, whose number is small and composed of men eminently entitled to the confidence of those who wish to see a park so situated and laid out as to be an available and agreeable place of resort for the majority of the inhabitants of the city. One of the chief difficulties in the way of accomplishing this most desirable end arises from the many advantages which the environs of the city offer for such a park. Of the innumerable plans with which the public have been entertained of late there is scarcely one that does not include most attractive portions of the surrounding country. The hearing is, we understand, to be renewed at some future day, and when the subject has been fully discussed in all its bearings, we shall hope to receive from the committee a plan which will satisfy the majority and prove creditable to the city. We have already expressed ourselves freely as to the sanitary advantages of public parks, and it is hardly necessary to repeat our opinion here. The citizens of Boston, we fear, have not, in times past, fully realized these advantages, but we hope to find that a change in public sentiment has taken place, that the disposition to lay aside all sectional feeling and leave the whole matter in competent hands has been gaining ground. Judging from the manner in which this movement has been inaugurated, and from the character of the men who now have the project in charge, we have good reason to hope that all obstacles will, on this occasion, be readily removed, and the project carried through successfully.

PATHOLOGY AND TREATMENT OF OVARIAN DISEASES.—(*Continued from page 43.*)—The remaining affections of the ovary are those which are the result of increased growth, usually taking the form of cystic degeneration. More rarely the growth is solid, and may be either fibro-myxomatous, or, more commonly, cancer. There are no diseases in the province of surgery where more care is needed in weighing every point in the history, every symptom and sign, for the purpose of establishing an accurate diagnosis, than in those classed under the head of ovarian tumors. It is best to make, first of all, a mental list of all the conditions that might exist, and exclude one after another until the alternative is left.

From the history alone, no ovarian tumor can be diagnosticated. The rate of increase gives no guide. The details given by the patient as to the region in which the growth was first observed are often very misleading. Tumors of one ovary are often stated by the bearers to have originated in the side opposite to that from which they are found to grow. The menstrual histories are to be almost disregarded in making the diagnosis. With some, me-

norrhagia, with others amenorrhœa, may occur. It is especially important to eliminate pregnancy, particularly the condition of hydramnios, which the author has known to be treated with fatal results, on two occasions, by tapping. The uterus, in the early months of normal pregnancy, is not unfrequently displaced to one or other side, and has often been mistaken for an ovarian cyst.

For the diagnosis of ovarian tumors, there are varied and almost numberless symptoms, the great majority being of little or no consequence for accuracy, and none of them are trustworthy. In the early growth of a simple cyst, symptoms of any kind are seldom met with until the tumor is sufficiently large to be impacted within the pelvis. The growth of dermoid cysts, on the contrary, is often accompanied by intense pain. As a rule, pain is not met with until cystic tumors are large enough, if out of the pelvis, to press on important viscera, or unless the surface undergoes inflammatory change. As it enlarges, the symptoms become more varied and numerous. In the pelvis, its pressure gives rise to dysuria or incontinence, constipation or diarrhœa, and to various neuralgias; in the abdominal cavity, by pressure on the stomach, liver and diaphragm, it often produces nausea and vomiting, distaste for food, &c. Coincidentally, there appear indications of great systemic alterations.

Ordinarily, the presence of an ovarian tumor is not brought to the surgeon's notice till it has reached a sufficient size to rise out of the pelvis and appear as an abdominal enlargement. Sometimes, however, it is necessary to determine the nature of a small pelvic tumor. An ovarian tumor, in this case, will be found to be almost invariably behind the uterus. Usually, this organ can be fixed between the two hands; behind it is the tumor, and, if the uterus can be moved independently of it, and if the tumor can also be raised out of the pelvis, no doubt need be felt that it is a tumor of the ovary or of the broad ligament; how to determine between these two it is hard to say, nor is it of much consequence.

As the tumor increases in size and rises out of the pelvis, it becomes more difficult to determine that it is not intimately associated with the uterus. It is often necessary to introduce the sound to determine this point; but, as a rule, this ought never to be done at the first examination. It not unfrequently happens that menstruation goes on for a few months after conception, and to assert the diagnosis between early pregnancy and an ovarian tumor just rising out of the pelvis, at a first examination, is a task which only the rash or the greatly experienced will undertake. Only when it has been ascertained, by manipulation, that the uterus is not enlarged, may the sound be introduced. If then it be ascertained that the tumor is not uterine, that it is rounded, elastic, and capable, to some extent, of being raised out of the pelvis, it is almost certainly ovarian. It may be ovarian if fixed, though it is rarely adherent at so early a stage of growth. If fixed, it may be a hæmatocele, an abscess, or a soft tumor growing from bone; previous history, symptoms, and, above all, exploration by the aspirator, will determine these points.

When an ovarian tumor has risen out of the pelvis, and has met with none of the accidents to which it is liable, its diagnosis is easy. Palpation and percussion will eliminate phantom tumors. Fluctuation will assist in determining whether it be uni- or multi-locular. Two conditions must be carefully excluded—cystic disease of the uterus and hydramnios. In the former, the tumor will be found associated with the uterus, the latter moving along with it when moved, and being dragged upwards by it to an extent that ought always to make us cautious.

Solid uterine tumors, besides the absence of fluctuation, have in addition two vascular signs not met with in ovarian growths: namely, an aortic impulse, which may be seen and felt, and an enlargement of the uterine arteries, to be felt in the vagina.

Hydramnios generally occurs in twins. Ballottement will assist in determining the differential diagnosis between a unilocular ovarian cyst and a distended uterus.

If the tumor be found to be not uterine and solid, yet attached to the uterus, and moving it so as to lead to the belief that it is ovarian, we have a choice between a dermoid cyst, a fibrous tumor of the ovary, cancer of the ovary, or a pedunculated fibrous tumor of the uterus. Fluctuation in some part, and its peculiar nodulated character, will betray the dermoid cyst, while fibrous tumors of the ovary and cancer are very rare.

The main difficulties in the diagnosis of an ovarian tumor are met with in the subsequent stages of its growth, between the time when it has risen above the brim of the pelvis, as far as the umbilicus, until it has reached its extremest size. Fluctuation, of so much use at an earlier stage, comes to have a decreasing value. Percussion will generally show, in an ovarian tumor, the characteristic distribution of dulness, though accidental complications may vitiate the value of this sign.

The *tactus cruditus* of a practised ovariologist can recognize—when both an ovarian tumor and ascites are present at the same time—that there is a double wave of fluctuation: one superficial and rapid, due to the ascitic fluid, and another deeper and perceptibly less rapid, due to the fluid in the cyst.

The enlargement of veins often seen in the skin of the abdomen in cases of ovarian tumor is of no great assistance as a diagnostic sign. Auscultation gives chiefly negative signs. Tapping, either for the removal of ascitic fluid or the contents of a cyst, is often a great help towards an accurate diagnosis. By the removal of peritoneal dropsy, we may discover the actual relations of an ovarian tumor, or we may find that the supposed tumor has no existence, and by removing the contents of a unilocular tumor, or of one or more of the major cysts of a multilocular growth, we may determine the existence of pelvic adhesions, of pregnancy, or of some other condition that may alter our views as to treatment.

Formerly, great stress was laid on the diagnosis of adhesions, but modern experience has led to a disregard almost wholly of adhesions that are not visceral or pelvic.

A final means for purposes of diagnosis, a *dernier resort* in cases of doubt, is the exploratory incision. The experience gained by the operator from one such case ought to assist him in avoiding its necessity in similar doubtful cases.

Mr. Spencer Wells has characterized the condition of the medical treatment of ovarian tumors as one of hopeless impotence.

The surgical treatment of ovarian tumors has now been simplified into two operations: the minor operation of tapping, which is palliative, and rarely curative, and the major operation of ovariectomy, which is either curative or fatal. Tapping by the vagina is not usually attended with good results.

The proper selection of cases for the performance of ovariectomy is one of difficulty, and can be based on experience alone. In the author's opinion, there can be only two reasons for refusing to do ovariectomy—either that the case is not far enough advanced, or that the tumor, in all probability, could not be removed. The most unfavorable case for ovariectomy is to be found in a young, healthy woman, with a medium-sized tumor. The rule ought to be to delay an ovariectomy as long as is consistent with the patient's chances of recovery, bearing in mind that it is not the healthiest that recover best.

Presupposing that a proper case has been selected, experience shows that the more nearly the patient's surroundings resemble those of a healthy private house the better. She requires some preparation for the change that is about to be made in her alvine actions. The time of the operation should be about midway between two menstrual periods. As to the anæsthetic to be employed, the author objects to chloroform, on account of the vomiting which follows its use, and he thinks sulphuric ether is not much better. He recommends the bichloride of methylene and the methylene ether. (The writer then goes on to state his method of operating.)

If there be no adhesions, and no large secondary cysts, ovariectomy, thus far, is a very simple operation. The complications and unsuspected difficulties are endless, and tax the presence of mind and ingenuity of the opera-

rator. Thus a second dermoid cyst may be found packed down in the pelvis, and it may be very difficult to remove it. For securing the pedicle, Mr. Wells's calliper-clamp is preferred.

Any tumor of the uterus had better be left alone, unless it be markedly pedunculated. If the uterus be enlarged by pregnancy, it must not be interfered with; but if unfortunately punctured in mistake for a cyst it is best to lay it open and empty it.

The after-course of a case of ovariectomy is subject to many mishaps. Of their approach, the temperature curve is the most trustworthy indication. Immediately after the operation, the temperature almost invariably falls considerably. To obviate the shock, it is well to place hot-water bottles to the sides and feet, and administer a diffusible stimulant. Advantage has resulted from the practice of giving a subcutaneous injection of morphia immediately after the operation.

For the first twenty-four hours after ovariectomy, the patient is allowed no other sustenance than ice or iced water, and, perhaps, in case of sickness, a little soda-water and brandy, or champagne. Nutriment may be given cautiously on the second day, in the form of chicken-broth or beef-tea, in small quantities, frequently, so as to obviate vomiting. No solid food to be taken till after the fourth day.

In the event of the occurrence of symptoms of peritonitis, special interference may be necessary, such as opening the recto-uterine *cul-de-sac* from the vagina for drainage. Septic poisoning is no more a peculiarity of ovariectomy than it is of amputations.

Vomiting, a frequent and troublesome symptom, must be stopped, if possible. The most useful remedy in Mr. Tait's experience is Morson's pepsine wine, given in drachm-doses every ten minutes with a little ice-water.

Flatulence is often a distressing symptom, and, if accompanied by a high temperature, is pathognomonic of peritonitis. Milk and lime-water often mitigate it, and the passage of a Burns's tube, as far as possible, up the rectum, will give much relief. Failing that, the author has frequently punctured the distended bowels with a fine exploring trocar, and kept it in for some hours, with great relief. Inflammatory attacks of the chest and diarrhoea sometimes occur. For three or four days after the operation, the catheter should be used every six or seven hours. The bowels should be kept closed by opium for seven or eight days. After the wound has healed, the patient should wear a tight-fitting abdominal belt instead of stays; for, in spite of all care in inserting stitches, there is a proneness to the formation of ventral hernia in the cicatrix for many months after the newness of the union has passed off.

The pathology of ovarian cysts involves a number of questions that have been raised and discussed by observers of the greatest eminence, but thus far there are no very satisfactory explanations of the growths. As to the causes of ovarian dropsy, we must confess that we know nothing about them. The most common form, the adenoid or proliferous, and also the rare multiple tumors, occur during the period of life when ovarian cell-growth is mature; the more rare unilocular cystic growths, besides being met with during this period, occur at the extremes of life.

The author has not yet met with an ovarian tumor that was unilocular, and he believes that all unilocular tumors in the neighborhood of the ovary are not ovarian, but of parovarian origin. The parovarium consists of a few closed linear sacs, the remains of the tubules of the Wolfian body in fetal life, which may readily be seen on holding the broad ligament, with the ovary and Fallopian tube *in situ*, up to the light. These tubules frequently contain a perceptible amount of fluid, and are frequently accidentally found in *post-mortem* examinations, distended to the size of beans or filbert-nuts. In every truly unilocular tumor, Mr. Tait has found the ovary unaffected, though, on several occasions, he has seen it stretched over the cyst-wall.

Mr. Tait has met with an example of a rare variety of ovarian tumors, the origin of which has been traced by Rokitsansky and Ritchie. In the case

recorded by the author, both ovaries were affected in their entirety. The tumors were multilocular, and had one or two major, with innumerable minor cysts, graduating down to the most minute size. The tumors had the appearance of huge white raspberries. An examination of the contents of a large number of the cysts discovered in every one more or less distinct remains of an ovum. The condition seemed to be an hypertrophy of the ovaries, with arrested development of their contents.

(To be continued.)

EXTRACTION OF A FOREIGN BODY FROM THE MALE URETHRA.—In the tenth number of *Le Bulletin de Thérapeutique* (1873), is mentioned the case of a man suffering from stricture, who was in the habit of passing an elastic catheter for himself. One day, he passed the instrument (No. 7), commencing by the end to which the bone ring is attached. After reaching the perineal region, he attempted to withdraw the catheter, but the ring became detached and remained within the urethra. The patient desired to have the ring pushed into the bladder, as pain and a desire to pass water had supervened. At a consultation of Dr. Andant and Lonstalot, it was resolved to use the following contrivance: A No. 7 catheter was obtained, and the bone ring being taken to a smith, an iron rod, of the same diameter as the catheter, was chosen, one end of which was turned, so as to act as a screw, fitting the grooves of the bone ring. The instrument was put into the hands of the patient, because, by long practice, he had learned the peculiarities of his urethra. The presence of the bone ring in the urethra having been previously ascertained, the patient was directed, when reaching the ring, to roll the free end of the rod in his fingers, so as to introduce the male screw into the ring. This was very cautiously and cleverly done, and when it was supposed that the rod was sufficiently fixed, it was slowly withdrawn, and the ring was brought to light, to the great satisfaction of both the patient and the surgeons.—*Lancet*.

THE distribution of the Hospital Sunday fund, by the Committee, was as follows:—

Massachusetts General Hospital	- - - - -	\$4,531.74
Carney Hospital	- - - - -	862.84
Massachusetts Homœopathic Hospital	- - - - -	571.02
Channing Home	- - - - -	574.16
House of the Good Samaritan	- - - - -	971.42
St. Elizabeth's Hospital	- - - - -	555.72
The Children's Hospital	- - - - -	1,147.27
St. Luke's Home for Convalescents	- - - - -	641.45
New England Hospital for Women and Children	- - - - -	1,146.03
Massachusetts Charitable Eye and Ear Infirmary	- - - - -	916.79
Boston Dispensary	- - - - -	829.92
Charlestown Dispensary	- - - - -	265.00
Dr. Cullis, Consumptive's Home	- - - - -	90.00
Dr. Cullis, Cancer Hospital	- - - - -	200.00
Boston Lying-in Hospital	- - - - -	5.00
Children's Mission	- - - - -	.60
Total	- - - - -	\$13,309.96

The above distribution of the general fund is based on the number of weeks of board and treatment given gratuitously by the hospitals during their last financial year. The last four named institutions on the list were the recipients of special contributions alone.

Correspondence.

LETTER FROM PHILADELPHIA.

PHILADELPHIA, June 4, 1874.

MESSRS. EDITORS,—A poorly drained city may be fairly compared to a case of empyema left to the tender care of nature, who, strive as she may, is sometimes but a clumsy physician. Virchow's pamphlet, "Drainage or Diarrhœa," roused the authorities of Berlin to the necessity of providing their unwholesome city with an alimentary canal. Would there were a Virchow here! How the city of Philadelphia escapes yearly epidemics of cholera, typhoid fever, diarrhœa and kindred evils is a problem. Drainage facilities are in process of construction here and there, but authorized less with a view to promotion of public health than for the purpose of giving a profitable job to a slave of the "Ring." Even at this early season, smells are countless. Every district has its peculiar odors, and one involuntarily recalls the famous couplet of Coleridge in relation to the city of Cologne:—

"Ye nymphs who reign o'er sewers and sinks," &c.

The advance of summer is to be dreaded, for the historic cleanliness of the Quaker City has departed. I have seen typhoid in the Berlin hospitals until it became fairly monotonous to visitors as well as to the physician, who frequently skipped an entire ward, remarking, with a shrug of the shoulders, "*nichts als typhus*." He knew well enough how it originated, but was powerless against the cause, just as physicians are likewise powerless in our ring-ridden city. There are commissioners of streets in Philadelphia. They handle large appropriations, but what becomes of the funds is a query more opaque than the riddle of Samson. There are hundreds of strong men here who eat their crust and their potato without knowing how another mouthful can be obtained, and still the streets remain filthy. Yorick's skull could scarcely be more offensive than some of them. In eight months, the street in which I reside has been cleansed *once*—a prominent highway at that.

I once spent a summer in a little German town whose streets were sweet and clean as a pine grove. I had frequently noticed about the town men in couples, pushing before them big casks suspended between wheels. They constantly stopped to enter houses along their route, carrying with them vessels filled with a liquid which they took from the casks. I noticed, too, that they poured this same fluid into the gutters and sewers. Upon inquiry, I learned that the casks contained a disinfecting, deodorizing liquid, of which every householder, who had not already sweetened and purified his belongings, was obliged to purchase and use a certain quantity, or which was thus applied by the carriers. I was struck with admiration, and wondered whether such a procedure would be considered too autocratic in republican America. But, Heaven help us! Worse diseases infest our city than those which proceed from gutters and garbage, and but for which our streets would be well sewered and clean as house-floors. Knavery and selfish, gluttonous greed are those diseases, the specific for which seems to be unknown. The honest many knuckle to the unscrupulous few.

It seems improbable that I shall ever be able to avoid mention of the Siamese twins. They were nearly repeated the other day in North Carolina. A colored woman gave birth to twins, united precisely as were the Siamese twins, with the exception that the union was more extensive in proportion to the general development. Both children were perfectly formed, one being smaller than the other. The supply of blood during fetal life was the same as in case of the Siamese twins, namely, by one umbilical cord, which entered the middle of the connecting band. But for want of timely aid at birth, this new monster would probably have lived. A curious feature in the new pair of inseparables was, or rather is (for the bodies have been preserved), that one is black, the other mulatto. This case reminds me of the

wondrous tales of monstrosities told in a queer little book, now one and a half centuries old, which I unearthed in a German town as odd as itself. The book was written by Ernst Antons Nicolai, a learned doctor, who gravely discusses mothermarks and monstrosities most edifyingly. He is, however, especially severe upon one Thomas Bartholinus, who reports the birth of a child with a cat's head, the original cat having frightened the mother in the early days of pregnancy by concealing herself in the bed. "The worst of these stories," says Nicolai, "is that even learned men accept them on faith, and without sufficient inquiry as to whether they be well grounded." "Now Bartholinus has imparted to the world the history of a child with a cat's head. In order, then, that this cat might be of use and have something to do, the story of the cat must be followed by that of a rat, and close thereupon Bartholinus relates that 'a lady brought into the world a great rat; this rat disappeared with great speed, and the witnesses, who never saw it again, were uncommonly frightened.' Bartholinus would have been very angry if these stories had been doubted, 'for,' continues he, 'I will not hope that these true events may become misbelieved,' and in order to convince his readers of his veracity: 'I hear,' says he, 'from a Polish nobleman, that a woman in his country gave birth to two small fishes, without scales, which, so soon as they were born, swam in water like other fish.' If I gave my opinion (drily adds Nicolai) it would be that these fish swam a great deal more in Bartholinus his head than in the water." And then this delightful old fellow, in a sort of German, which I cannot begin to put into modern English of the same flavor, goes on describing monsters which had a truer existence than the cats and rats of Bartholinus.

If I were writing on monstrosities, I should not fail to make use of some of these extremely interesting abortions, which are described by Nicolai with a quaintness and physiological opacity more than amusing.

This afternoon, the new University Hospital building will be dedicated. Besides the main structure, now completed, pavilions are to be erected, in order to give increased accommodation to patients. In consideration of the generous gifts from State and city, a large number of free beds are to be kept "forever" open to the sick and poor of the Commonwealth, fifty beds being allotted to the city alone. In one of the pavilions now erected, bathing facilities, very perfect in character, are to be arranged under the supervision of Dr. Duhring, and will comprise the electrical, Russian, Turkish, needle, vapor, pine, mercurial, shower, douche, constant and mineral bath, thus forming one of the most complete systems of baths yet established. The main building contains lecture-rooms, capable of seating seven hundred students. Happy University! The ground upon which it stands was presented by the city. The building funds (about \$500,000) were given by State and city. Gifts have rained down upon the fortunate institution, not, however, without earnest, untiring diligence on the part of the Faculty, of whom Prof. Wm. Pepper, and John Welsh, Esq., of the Board of Trustees, have been the workers whose magical influence, in opening the pockets of individuals and the Treasury of the State, has achieved the present robust and energetic condition of the University.

Jefferson Medical College is also, it is hoped, on the smooth road to new developments. By individual subscription, \$50,000 have been raised toward the expense of a new hospital. When this amount becomes doubled, the Legislature will contribute \$100,000 to this object. It is to be earnestly hoped that the happy end is not far removed. Prof. Samuel D. Gross, present incumbent of the Chair of Surgery in Jefferson College, read a paper this week upon scrofula, before the National Medical Association at Detroit. The essay has attracted the attention of the whole profession.

The summer sessions of the medical schools of Philadelphia are now in progress. They consist mainly of lectures by the sub-faculty—the younger men—the subjects discussed being special topics, as laryngoscopy, pathological anatomy, minor surgery, syphilis, study of the urine, toxicology, the eye and the ear. Surgical clinics are held semi-weekly, and are, of course, conducted by the professors of that branch of medicine. The classes number,

perhaps, one-third of their winter complement, and the lectures terminate at 2 o'clock, P.M. Afternoons are devoted to reading (by those men who do read) and dissecting. Quiz-men use this opportunity for coaching their students in special matters, giving private lectures on that bugbear the brain, on the eye and ear, &c.

Professors Pancoast, senior and junior, removed yesterday the left superior maxilla of a man aged 60, for epulis, which had crept into the antrum. The incision extended along the inferior maxilla from the sigmoid notch to the median line. After dissecting and turning back the flap, the malar bone was divided by a chain saw, and the median attachments of the superior maxilla divided by bone forceps. The bone was found to be simply a mass of *débris*, and the excision encroached upon its fellow of the left side. The infra-orbital was divided within the orbit. The velum palati, having lost its attachments, fell into the pharynx, from which it was subsequently lifted and restored to its place by means of sutures, which connected it to the sheath of the right masseter muscle and the periosteum of the left malar bone. Before the cheek flap was replaced, its inner surface was seared with a hot iron. A vain attempt, perhaps, to prevent recurrence. Prof. Joseph Pancoast has done this operation thirty-five times. His experience leads him to form an unfavorable prognosis, his object in operating being mainly to prolong the life of the patient by two or three years.

I hope you have seen, or possess, a case of Barth's pathological preparations (Dr. Otto Barth, of Leipzig), one hundred in number. They are beautifully mounted in refined resin, on fine glass slides, are stained either with carmine or hæmatoxylin, disposed in racks in a highly finished box of mahogany, and, notwithstanding you find here and there a section which may be a trifle too thick, they are invaluable to physicians who use the microscope, but have neither time nor opportunity to prepare specimens for study or for use in teaching. Enclosed, I send you a printed list of the preparations, which you will doubtless be glad to show to any gentlemen who may wish to see it. Such a collection, if brought into general use, would undoubtedly create a more general interest in the microscopic study of disease.

Summer is upon us with an energy (96° in the shade) which makes one dream of the sea and the New England hills. The sublimest patience with the weather, as well as with the shameful, disgusting condition of our streets, seems to be our only resource. Naturally, we anticipate a rapid increase in the death-rate of the city, and if our commissioners of streets (recruiting sergeants, rather let us say, for the dread visitant!) all become stricken with fell disease, can we pity them?

UNGENANTT.

HOW TO DISCOVER SMALLPOX IN ITS EARLY STAGE.

CHATTANOOGA, TENN., June 11, 1874.

MESSRS EDITORS,—I ask your comments on the enclosed clipping, the date and source of which I do not know, from the fact that it came into my possession in its present form.

Very respectfully yours,

J. S. BURNS, M.D.

The *Eclectic Journal*, in an article on smallpox, admonishes physicians not to be hasty in passing their opinion that any eruptive disorder is that loathsome disease until they prove the following diagnostic symptoms:—

"Now we offer this secret to the profession. So soon as the eruption appears, by pressure with the point of the finger may be distinctly felt the small, hard substance, precisely as if a small, fine shot had been placed under the cuticle of the skin. This peculiar appearance belongs to no other eruptive disease. We have applied the term secret here, for while it is and has been known to a few physicians, it is not mentioned in any of the standard authorities, nor does the writer claim the credit of the discovery. After this, all works upon practice will add this unfailing diagnostic symptom."

We are not aware that this is in any way new.—EDS.

Medical Miscellany.

THE Dublin Hospital Sunday movement has been greatly discouraged by the Roman Catholic church, but, in spite of this, some fifty churches, including Jews and Protestants of all denominations, have promised coöperation in the movement.

"PROBABLY most will agree with us that the national body [American Medical Association] was excelled in the interest of its transactions, as it was in the number of its participants, by the Massachusetts Medical Society. —*Philadelphia Medical Times*, June 27, 1874, p. 618.

DEATH FROM CHLOROFORM.—The *British Medical Journal* of June 27th says: "Another of these distressing accidents, the frequent repetition of which has already given Cincinnati an unenviable notoriety, has lately occurred [there]." *Caveat Actor!*

AGREEABLE PURGATIVE.—

℞. Magnesiae calcinat., ʒiss.;
Aque puræ, ʒij.;
Syrup. orgeat (or curaçoa), ʒss. M.

HÆMORRHOIDS.—Dr. Wm. Colles, Dublin, lately injected twenty minims of tincture of perchloride of iron into each internal hæmorrhoidal tumor. No traces could be found some weeks afterward, by speculum, except nodules, of the size of shrivelled currant. The case had resisted Dr. Houston's application of fuming nitric acid.—*British Medical Journal*, June 27, 1874, p. 849.

TREATMENT OF PARAPHIMOSIS.—M. Bardinet suggests the following simple method of reduction:—

Pass between the prepuce and corona a blunt lever—the blunt end of an ordinary hairpin answers well—one end being placed in the upper, another at some nearly corresponding place beneath. The fingers are then used in drawing forward the prepuce by a sort of screwing movement, the hairpin or other blunt instrument, such as the handle of an ordinary teaspoon, acting as a lever to slide the prepuce over.—*New York Medical Record*.

IT ANSWERED WELL IN MY HANDS.—"There is a clan of practitioners," says a late writer, "of an enthusiastic and self-applauding, credulous disposition, who are invariably satisfied that, had they not done exactly what they did do, and exactly at the moment it was done, the result would have been very different, i. e., much less satisfactory. This is a most enviable disposition, for it is the source of inexhaustible happiness to its possessor throughout his life. It is also the most unphilosophical disposition conceivable, and almost fatal to self-improvement."

A SIMPLE METHOD OF REDUCING THE DISLOCATION OF THE FOREARM BACKWARDS.—Dr. Alexander Murray writes to the *New York Medical Record* of July 1, 1874, that he has reduced five cases of the above-mentioned dislocation by the method to be described.

Supposing the dislocated arm to be the left. Dr. Murray takes his position at the outside of the dislocated arm, and places the palm of his right hand to the palm of the patient's left, dove-tailing his fingers between each of the patient's. In this way, a firm hold is secured for extension. He then places his elbow as a fulcrum and for counter-extension on the forearm in front and against the lower end of the humerus, and by a steady pressure downwards and backwards, and at the same time flexing the forearm towards the shoulder, in a few minutes the luxated bones slip into their natural places. Other dislocations of the elbow can be reduced by the same method.

POISONED AT A CHEMICAL LECTURE.—A very tragic occurrence took place recently at Bucharest. Dr. Bernath, the principal of a public laboratory in that city, was giving a popular lecture on chemistry. Among his hearers was a Madame Davila, a lady of good family and intimately acquainted with the professor. The lady was taken ill in the course of the lecture, and the doctor prepared a draught for her, in which he intended to mix some quinine, but by accident used strychnine instead. The unfortunate victim was taken out into the street, and died almost instantly.—*Boston Journal of Chemistry*.

THE HORSE AND HIS RIDER.—M. Perret, a French pharmaceutical chemist, has discovered a very simple and economical method of saving horses, particularly when they are not in motion, from being tormented by flies. It consists in merely rubbing them with a little concentrated oil of laurel, which is extremely disliked by the flies. The oil should be specially applied to the parts where the flies usually settle. With about three pennyworth of this oil a horse can be annoiined for three days. There is not the slightest danger in using it, and, indeed, its slightly stimulating action is beneficial to horses, and keeps their coat in good order. This expedient may also be usefully replaced by a solution of 60 grammes of assafoetida mixed with one glass of vinegar and two of water. The strong odor of the assafoetida drives away the flies, and if horses be well washed with this, not a fly will settle on them. No apprehension need be felt in using the assafoetida, which has no deleterious properties.—*The London Medical Record*.

ORE ON INTRAVENOUS INJECTIONS OF CHLORAL.—M. Oré, in a communication to the Paris Academy of Sciences, upon intravenous injections of chloral, arrives at the following conclusions: To obtain complete anæsthesia, the solution should be of one-third strength. Injection should be effected always by the process of direct puncture, without denudation of the vein. The surgeon should perform the operation slowly, so that he may sound the predispositions of the patient. When the patient indicates that a sleepy feeling is attained, anæsthesia is also imminent. From the time that sleep is produced, injection should be discontinued; in a few minutes, such a state of anæsthesia will evince itself as chloroform could never produce. The operation concluded, immobility may be removed by application of the electric current. From the commencement of the operation, the surgeon should have in readiness an electrical apparatus. Anæsthesia produced by intravenous injection of chloral is applicable to all surgical operations, especially to those of long duration, resections, ovariectomies, &c.—*London Medical Record*.

MORTALITY IN MASSACHUSETTS.—*Deaths in fourteen Cities and Towns for the week ending July 4, 1874.*

Boston, 143; Worcester, 14; Lowell, 11; Milford, 1; Chelsea, 6; Cambridge, 22; Salem, 4; Lawrence, 9; Springfield, 7; Fitchburg, 1; Newburyport, 2; Fall River, 16; Haverhill, 6; Holyoke, 6. Total, 248.

Prevalent Diseases.—Consumption, 44; pneumonia, 21.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 11th, 105. Males, 53; females, 52. Accident, 4; apoplexy, 3; bronchitis, 1; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 3; cancer, 2; cholera infantum, 13; consumption, 9; convulsions, 3; debility, 6; diarrhoea, 4; dropsy of the brain, 3; drowned, 2; erysipelas, 1; scarlet fever, 1; typhoid fever, 2; disease of the heart, 5; intemperance, 2; disease of the kidneys, 7; laryngitis, 1; disease of the liver, 2; congestion of the lungs, 2; inflammation of the lungs, 4; marasmus, 5; measles, 1; neglect, 1; old age, 1; paralysis, 3; premature birth, 2; peritonitis, 1; puerperal disease, 1; occlusion of the rectum, 1; syphilis, 1; teething, 1; tumor, 1; whooping cough, 3; unknown, 1.

Under 5 years of age, 56; between 5 and 20 years, 3; between 20 and 40 years, 15; between 40 and 60 years, 17; over 60 years, 14. Born in the United States, 78; Ireland, 20; other places, 7.

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Original Communications.

THE DRESSING OF WOUNDS.

Read before the Massachusetts Medical Society, June 2, 1874.

By FRANCIS W. GOSS, M.D., of Roxbury.

It is the business of the physician to know things similar and things dissimilar, says Hippocrates, in his Tract on the Surgery; and one may well believe him, in view of the contrariety of doctrines promulgated and enforced in these latter days. Only a few years ago, it was dogmatically declared that wounds should be *excluded from the air* in antiseptic dressings. Now comes an equally urgent advocacy of *leaving them untouched*—the open treatment, as it is called; while between these extremes we have every variety of practice, leaning toward one or the other method, according as the convictions of the practitioner incline him.

Since such diversities exist in the manner of dressing wounds, amounting, apparently, if not in reality, to modes diametrically opposed to each other, it becomes us to consider carefully the various methods which their advocates present; to weigh well the results claimed, as to whether they are fairly stated, or are intentionally or otherwise warped to favor the views advanced; and then to adopt such methods in the dressing of wounds as study and experience convince us to be best suited to our patients.

Few physicians are so situated that they can entirely ignore the treatment of wounds; for, although the majority of the profession may not claim to make surgery a specialty, and may decline to treat the severer injuries or diseases which are classed as surgical, yet almost all of us must attend to such as come under the classification of minor surgery, which, if mal-treated, may result most unfortunately for the patient and the physician.

Probably, from very early times, it was noticed that in injuries where the tissues were so lacerated that the wounds were exposed to the air, the condition was vastly more unfavorable for the restoration of the integrity of the part, and the rapidity of healing, than where the wounds were subcutaneous. Mr. Hunter* divided the injuries done to sound parts into two sorts, according to the effects of the accident. He says: "The first kind consists of those in which the injured parts do not communicate externally, as concussions of the whole body, or of particular parts, strains, bruises and simple fractures, which form a large division. The second consists of those which have an external communication, comprehending wounds of all kinds,

* Works, vol. iii. p. 240, quoted by Paget.

and compound fractures. The injuries of the first division, in which the parts do not communicate externally, seldom inflame; while those of the second commonly both inflame and suppurate." Mr. Paget* states that it hardly seems possible to exaggerate the importance of the principle which Hunter has embodied in these sentences. "For of the two injuries inflicted in a wound, the mechanical disturbance of the parts, and the exposure to the air of those that were covered, the exposure, if continued, is the worse."

The recognition of the fact that wounds to which the air has free access usually inflame and suppurate, has probably given rise to the attempt to render open wounds practically subcutaneous, by means of such dressings as should exclude the air. It is one thing, however, to have the tissues unbroken, and the injured parts not exposed to the air, and quite another to treat as of this class wounds to which the air has once had free admission. Unless we have good reason to believe that art can, by its appliances, render practically subcutaneous a wound that has once been open, it is better to anticipate the probability of inflammation and suppuration, and to provide for them.

The most prominent advocate of modern times for the occlusive treatment of wounds is Prof. Lister, of Edinburgh. Accepting the teachings of Pasteur, that the particles of dust which the atmosphere contains are germs of bacteria or other allied organisms, and are the exciters of the putrefactive changes that occur in wounds, he endeavors by antiseptic dressings to deprive the atmospheric germs of their septic energy, so that whatever air reaches the wound shall contain no particles capable of exciting septic changes in it. The dressings are practically impervious to the air, and are to be applied with scrupulous attention to the minutiae which the author of the system imposes. He claims in this way to bring open wounds approximately to the condition of subcutaneous ones. His method is briefly as follows:

A piece of oiled silk protective is applied to the skin, over the protective is laid a quantity of antiseptic gauze, folded in several layers, usually eight, while between the two outer layers of gauze a piece of waterproof Mackintosh is placed. The whole is retained by a bandage of gauze, properly applied. While the part is being operated on or dressed, a spray of a solution of carbolic acid is kept constantly playing over it. Vessels are tied with antiseptic catgut ligature, and carbolized silk is used for sutures.

That the plan is a complicated one is evident. It may be carried out in hospitals, but certainly in private practice it can only be followed with extreme difficulty. If the results show it to be superior to any other method, no pains should be spared to adopt it.

Lister, as is well known, claims remarkably successful results for his method. One of his disciples† goes so far as to state that "the antiseptic method itself is not one of the possible modes of managing wounds, it is the only possible one, the only one worthy of modern surgery." Passing by the fact that there is good reason to believe that the theory of M. Pasteur, upon which Lister bases his treatment, is unsound,‡ some eminent surgeons have by no means met with so favorable results as Lister claims to obtain.

Professor John Wood, in his address, delivered before the last an-

* Surgical Pathology, pp. 118, 119.

† Lesser on the Antiseptic System. Edinburgh Medical Journal, March, 1874.

‡ The Lancet, Oct. 11, 1873, page 529.

nual meeting of the British Medical Association, relates his experience regarding the antiseptic system of dressing wounds. He has given, he believes, at King's College Hospital, Lister's method a fair trial. As long as the hospital was healthy, wounds treated by the antiseptic method did remarkably well. After a time, erysipelas and its concomitant pyæmia began to show themselves, "and the erysipelatous blush," says Mr. Wood, "appeared with blameworthy impartiality in cases treated in all kinds of ways, and almost as impartially on my own antiseptic side of the hospital, as on my colleague Sir William Fergusson's non-antiseptic side." Mr. Wood came to the conclusion that, in the generality of wounds, we could not, without danger, depart from the old rule of providing a free exit for all purulent and offensive discharges, and that for the want of this, the exclusion of air was not a sufficient compensation.

Dr. George Thompson writes* that he had used Mr. Lister's methods in his own practice at the Oldham Infirmary, and that at no small sacrifice of time and convenience he had conducted every dressing with the utmost care, but had failed to obtain results in any way better than he had been accustomed to see in dressing by other methods. He therefore visited Mr. Lister's wards to ascertain the cause of his failures. To his disappointment and mortification, he saw cases looking very much like what he had been accustomed to see in other hospitals. In two cases, at least, inflammation and suppuration had occurred after the application of the dressing, and these were explained away in one case by the access of germs, and in the other by the premature removal of a drainage tube. Mr. Lister, in his remarks on these cases, did not for a moment entertain the bare possibility of any failure of the antiseptic system, and the visitors were asked to believe that in these cases putrefaction had been absent, and to observe what an advantage it was to render, as he did, putrefaction an impossibility. Dr. Thompson says he left the wards with the last remnant of his belief in Prof. Lister dissipated to the winds.

Such testimony—and more of a similar purport might be cited—settles, it would appear, the value of Mr. Lister's carbolic acid dressings. Heretofore, he has asserted that the failure of others to obtain as favorable results as his own has been due to the fact that they have not followed his directions in every particular. Both Professor Wood and Dr. Thompson claim to have faithfully complied with Lister's instructions, and to have failed to meet with more success than is obtained by simpler and well-known methods.

Another form of antiseptic dressing is that of cotton-wool. M. Guérin adopted the theory of Pasteur, and, guided by the experiments of Tyndall, which showed that the atmospheric germs were intercepted when air was made to pass through cotton-wool, he made use of this article in the dressing of wounds, hoping thereby to prevent putrefactive changes in them. But as the subject of cotton-wool dressing has been presented in all its bearings to-day,† a passing notice of Guérin's method is all that is now needed.

A favorite method with some surgeons, particularly in the treatment of contused and lacerated wounds of the extremities, is that of immersion in water; either in that which is kept cold by ice, or in that

* The Lancet, Sept. 20, 1873.

† In a paper by Dr. T. B. Curtis, to appear in a future number.

which is warm. Billroth* states that he first saw this plan used by his earliest teacher in surgery, Prof. Baum. Billroth himself has often adopted this procedure with satisfactory results. He thinks there may be considerable latitude allowed as to the temperature of the water, adapting it to the feelings of the patient. At first, a lower temperature (54° – 68° F.); later, a higher one (88° – 95° F.). The immersion is to be continued from eight to twelve days, and after that it may be employed at intervals.

Dr. F. H. Hamilton, of New York, in a paper on "The Use of Warm Water in Surgery,"† advocates the use of warm water as a surgical dressing in preference to cold. In ten cases, embracing a considerable variety of injuries and diseases that demanded surgical interference, he employed, wherever it was possible, submersion of the wounded part in water, at a temperature of about 90° F. Otherwise, fomentations of warm water were applied by means of compresses, and covered with cotton and oiled silk. In most cases of submersion, the part became considerably, or extremely, œdematous, but in no case did any injurious result occur from the presence of the œdema. The average duration of the submersion was fourteen days. The results obtained by the use of warm water in this way were uniformly good.

Probably the choice of the prolonged use of warm or of cold water should depend on the condition of the patient. A strong man meeting with an injury while in full health, in whom we may anticipate powerful reaction, will endure the application of ice-cold water without harm, if not with advantage; while to one who is constitutionally weak such an application cannot be beneficially made. In any case, the use of cold water should not be too long continued, lest the vitality of the wounded part be impaired, and permanent injury be done. It is worth consideration whether, for instance, after amputations, the application of ice, which is sometimes made to the flaps for many hours, may not so diminish their vitality as to favor subsequent sloughing. The application of cold water to a wound, as it is ordinarily made, by simply laying a cold compress upon it, is soon converted, by the heat of the part, into a warm-water dressing, and, if undisturbed, in a little time becomes dry.

Poultices, particularly in hospital practice, are much less used than of old. As Billroth puts it,‡ "Formerly, cataplasms belonged to suppurating wounds as undoubtedly as the lid to the box." They are, unquestionably, of value in many cases, but experience has shown that they are not indispensable in the treatment of wounds. As to charpie, which was formerly, if not now, in use in great and unsparing abundance in Paris in dressing wounds, it is often burdensome to the patient from the quantity employed, and in suppurating wounds it soon becomes a filthy mass.

In contrast to the various methods that have been referred to, an entirely different practice—that of the open treatment—has, of late, been brought to the notice of the profession. In a work by Dr. Krönlein, recently published,§ the author relates the results of the treatment of wounds during two different periods in the surgical wards of the hospital of Zurich. During the first of these periods,

* Surgical Pathology, translated by Hackley, page 156 et seq.

† The Medical Record, Dec. 1, 1873.

‡ Op. cit., page 160.

§ The London Medical Record, April 1, 1874.

from 1860 to 1867, the wounds were covered in the ordinary way; during the second, from 1867 to 1871, the open treatment was pursued systematically.

For purposes of comparison, the following classification of cases was made: 1. Amputations; 2. Extirpations of the Breast; 3. Compound Fractures; 4. Accidental Surgical Diseases.

The mortality of the two series as regards amputations was:—

	First period.	Second period.
Thigh,	31 in 36, or 86.1 per cent.	10 in 23, or 35.7 per cent.
Leg,	21 in 36, or 58.3 “ “	2 in 11, or 18.1 “ “
Foot,	6 in 17, or 35.2 “ “	3 in 15, or 20 “ “
Upper arm,	10 in 18, or 55.5 “ “	2 in 14, or 14 “ “
Forearm,	4 in 24, or 16.6 “ “	0 “ 0
Hand,	0 “ 0	0 “ 0

The cases of extirpation of the breast showed a mortality of 32.3 per cent. in the first period, and of 13.6 per cent. in the second. The time of healing was 43 days in the former, 67 days in the latter.

Of the cases of compound fracture, 22 in 86, or 25.5 per cent., died under the ordinary treatment; 14 in 65, or 21.5 per cent., under the open.

Pyæmia and septicæmia occurred less frequently during the second than in the first period.

The time of healing was usually longer during the second period.

By the open method, healing by the first intention was not attempted. Care was taken to secure all bleeding vessels; cleanliness and a free exit for the discharges from the wounds were obtained. Stitches, bandages and all dressings were discarded.

Aside from the reduced mortality asserted to be due to the method as practised at Zurich, for purposes of observation and clinical instruction it has great advantages; because the wounds are so readily exposed to full view, and the healing or other processes are so easily seen.

On the other hand, no opportunity is given for the immediate healing of wounds, and there is wanting that support afforded by properly-applied bandages and strappings, which is in itself a comfort to the patient, and an aid to the process of healing. A source of danger at once occurs to the mind, as to whether intermediary and secondary hæmorrhage would not be likely to take place, owing to the want of sufficient support to the divided vessels of the wound. In fact, of several cases treated at the Middlesex Hospital on the open plan, in two this very accident occurred.*

This question of the open treatment of wounds, or of their closure by dressings, is not of recent discussion. From very early times, we find it occupying the attention of surgeons. Bonetus, in his “Guide to the Practical Physician,” published two hundred years ago,† states that “*Cæsar Magnatus* and *Septalius* following him disapprove of the old way of curing wounds, used hitherto by all physicians and surgeons who every day, at least once, do cleanse and wipe them, and when they have applied new medicines bind them up again. And they blame *Galen* that, passing by the indication of most moment, he was only intent upon the lesser, that is, abstersion of the excrements and filth, the cause that breeds them being neglected, and all care of conserving the temperament and innate heat of the part;

* The Lancet, April 11, 1874.

† London, 1684. Article, *Vulnera*.

which, and the strength of the part, if they be taken care of, they think there will be a far less increase of excrements. And they think the heat of it will be cherished, and strength will be added to it, if it be hindered from expiring, and its quality be preserved. Which they think they are able to obtain, by making up the defect of a natural covering with a Medicine analogous and familiar to the temper of the part; by means whereof the heat may be cherished, and its quality may be helped by its like. Whence they gather, that for to defend this heat, wounds must be seldom opened, lest the ambient Air do hurt them. But," continues Bonetus, "since the same Persons confess, that most grievous wounds have been cured by the old way of cure, and they cannot deny, but this new one has only place in simple wounds, and where the wounded party is of a good habit of Body, where great Vessels are not hurt, and the Nerves are whole; besides, there are many wounds, by their own confession, which Nature is not able to cure, unless the impediments be removed by a Surgeon, as if the Body be Cacoehymick, whence comes great store of excrements, which cause Pain, Corruption of the Part, Inflammation, Worms, proud flesh and the like: Finally, since the exceptions exceed the rule, which very rarely allow the use of this new way, we must insist upon the old one, approved for many ages."

The ancients sometimes had a faith in infallible and quite complicated methods of healing wounds, similar to that which is presented in modern times, as will be evident from another quotation from Bonetus, which will compare well with some equally elaborated formulæ of these so-called more enlightened days.

"This," says Bonetus, "cures all Wounds, to a Miracle:* Take of Aqua Vitæ thrice distilled, and well rectified 2 pounds, St. John's-wort, Hyssop, Millefoil, each 2 handfuls, Frankincense, Myrrhe powdered, each 3 ounces. Infuse them 4 days, and distill them in Balneo or in Sand. Keep it. When you have closed the wound, wet it with this water, by pouring it upon the Wound, and laying on Pledgits, wet in it, with Powder of Myrrhe, Mastiche, Frankincense, Sarcocolla Bole-Armenick, Dragon's Blood, each equal parts. Make a powder; and strew it upon the suture wet with water, and apply upon that a Pledgit wet in oyl of Turpentine, and bind it, do not unbind it till the fourth day, and once every day foment the Wound as it is bound, and wet it with the same *Aqua Vitæ*: On the fourth day loose the ligature, and you will find the wound healed; but if you should not find the Wound healed, do the same again, and open it not for 3 days, wet the Wound every day, as before, then loose it, and cure it as before for 2 days."

In view of the conflicting theories, and the various dissimilar practices, recently advocated regarding the dressing of wounds, no apology is needed in calling the attention of even a learned body to the subject, and in presenting anew some practical considerations that may guide us in their proper treatment.

One point to be aimed at should be *simplicity of method*. The less complicated the dressings of a wound are, provided they fulfil all the requirements of the case, the better. The want of simplicity would be a fatal objection to Lister's method, unless it should be proved to be greatly superior in its results to any other. In the open treatment

* Op. cit., page 660.

of wounds, we have simplicity of method carried to the extreme ; but, not to repeat the seeming objections to the method that have already been noticed, it is not probable that practitioners are quite ready to entirely discard sutures, strapping and bandages in the dressing of wounds. As to the application of bandages, it is well to bear in mind an old saying of Hippocrates, that it is better to apply a number of bandages to insure firmness of dressing, than a single one too tightly.

Another point of the highest importance, the neglect of which is a serious error, is to *provide, in the start, for a free exit for the discharge of any fluid that may form or collect in a wound.* In no case should the edges of a wound be so tightly confined, in their whole extent, by sutures, or otherwise, that a chance for drainage is not secured. This rule holds good for simple incised wounds, even the smallest, and where we expect healing wholly by first intention. This provision for the drainage of a wound does not preclude the proper coaptation of its edges, nor interfere with the promptness of its healing if, fortunately, there should be no accumulation of fluids within it, but will prevent suffering, and perhaps disaster, should such an accumulation occur. We have heard experienced observers say that they have seen more trouble from the neglect of this simple precaution on the part of general practitioners in dressing wounds than from most, if not all, other causes put together. As an instance of this neglect, who has not known, in wounds of the scalp, pus to burrow extensively, dissecting the tissues from the skull in every direction, thereby converting what might have been a comparatively slight lesion into one of the gravest import ?

Another point that we should take pains to secure is *rest to the wound.* Especially is this true of wounds resulting from amputations. Whatever dressing we may at first apply, whether it is dry or moist, we should endeavor, during the first two or three days, to leave the wound as undisturbed as possible. If the bandages seem to be too tightly applied, they may often be partially cut away to loosen, without materially disturbing, the dressing of the wound. In this way, an opportunity is given for its early healing, if such will take place, while the granulations which form on its edges afford a barrier to the passage of septic agents, if such are present in the vicinity of the wound. Whatever views we may adopt regarding the possibility of such a mishap, all of us can but recognize the desirableness that whatever attempts at repair may be going on shall not be impeded by unnecessary interference on our part.*

The importance of pure air and of cleanliness, equally necessary in all methods of treatment, need hardly be mentioned at this time.

A chief object of this paper, while enumerating some of the more recently promulgated, and at times conflicting, methods of treating wounds, has been to re-state some of the leading principles sanctioned by the most prominent surgeons through all time, which are too apt to be lost sight of while maintaining sensational measures and startling schemes, but which must not be ignored, if the practitioner wishes to escape disasters, and to obtain the best results in any case put under his charge. Though these may be deemed small matters—minor surgery, so called—still the subject often involves serious conse-

* Vide remarks of Messrs. Savory and Callender on Pyæmia, before the Clinical Society of London. British Medical Journal, March, 1874.

quences to the attendant as well as to the patient, and has the highest classical as well as professional authority for its importance; for, of old, Homer sang:—

“A wise physician skilled our wounds to heal,
Is more than armies to the public weal.”*

THE ACTION OF THE SOFT PALATE IN SPEAKING AND SWALLOWING, AS SEEN THROUGH THE NOSE IN CERTAIN CASES.

By F. I. KNIGHT, M.D.

Instructor in Harvard University; Physician to Out-patients with Diseases of the Throat at the Massachusetts General Hospital.

THE views of writers and experimenters in regard to the position of the soft palate in speaking, have, in times gone by, been very contradictory; on the one hand, some affirming that in the pronunciation of vowels, for instance, the soft palate was raised even to a complete closure of the posterior nares, and others maintaining that it remained unmoved.

Bidder (*Neue Beobachtungen über die Bewegungen des weichen Gaumens*)† had an opportunity of observing the action of the soft palate in speaking, through a large opening in the nasal region, and found that in the pronunciation of the vowel sounds the palate was indeed raised, but that the posterior nares were not completely closed.

Shuh (*Wiener Medizinische Wochenschrift*, Jan. 16, 1858)‡ communicates observations which he had the opportunity of making on a patient from whose nasal region he had removed a growth, with considerable loss of substance of the nose. He was able, on this account, to obtain a good look down upon the soft palate. He watched its action, both in deglutition and in phonation. He found that, in the pronunciation of the vowels, the soft palate was always raised. This elevation of the palate he found to be least in the pronunciation of A (ah), not up to a horizontal line; with the other vowels, he found it to be raised above the horizontal line, most by I (ee), a little less by U (oo), and still less by O (oh) and E (ay), no difference having been noted between the two latter.

Shuh observed a rising of the soft palate, at least to the horizontal line, with all the movements except the nasals.

The uvula was never visible from the nose.

These observations of Bidder and Shuh are the only ones, as far as I know, in which there has been a direct inspection of the soft palate through the nose, and in both of these there was an abnormal opening.

Although it has been noticed that by anterior rhinoscopy, in favorable cases, the posterior wall of the pharynx can be seen, yet no one seems to have hitherto observed the action of the soft palate through the healthy nose. I have recently had two patients, through whose well-dilated nostrils, by using reflected light, I could see well the action of the soft palate, in speaking and swallowing. In one of the cases, I tried all of the vowels. My results were essentially the same

* Iliad, xi. 635-6.

† Ueber die Verschlussung des Schlundes beim Sprechen. Dr. Gustav Passavant. Frankfurt, a. M. 1863.

‡ Passavant. Loc. cit.

as Shuh's, the soft palate rising highest with I (ee), the least with A (ah), and there being not much difference between the others. I tried a few consonants, only, but with the same result.

I do not doubt there are many cases in which this action can be well seen through the nose. It has not been noticed before, because it is only since the perfection of laryngoscopy that we have usually employed strong, reflected light in examining the nose, and because, during the examination of the anterior nares, the patient does not usually speak or swallow, and so bring the soft palate up into the line of vision.

Progress in Medicine.

REPORT ON PHYSIOLOGY

By H. P. BOWDITCH, M.D.

[Concluded from page 12.]

GLYCOGENESIS.

SINCE the publication of the report on the glycogenic function of the liver, in January, 1873, considerable progress has been made in our knowledge of this function. The results of recent investigations have been admirably presented by Dr. T. Lander Brunton, in three lectures on the pathology and treatment of diabetes mellitus, published in the *British Medical Journal* for January and February, 1874. To these the reader is referred for details which would be out of place in this report.

The so-called glycogenic function of the liver really consists of two separate and distinct processes: first, the formation of glycogen from the materials supplied by the food and its accumulation in the cells of the liver; and, secondly, the change of this glycogen into sugar and its return to the circulation. The liver thus acts as a store-house, in which organic substances can be held in reserve when presented in quantities greater than are needed for the immediate use of the organism, and from which they can be given out in a form adapted for rapid consumption whenever they may be needed. In this respect, the liver is analogous to the roots and seeds of plants, which accumulate starch and cane sugar during one season's growth, and at some subsequent period change it to glucose to provide for the further growth of the plant or for germination. This and other interesting analogies between plants and animals have been pointed out by Bernard in his lectures on "vital phenomena common to plants and animals." (*Revue Scientifique*, July-December, 1872.)

It must not be supposed, however, that the liver is the only organ which acts in this way to store up organic substances for future use. The muscles have this same power, and it has been shown by Weiss (*Wiener Sitzungsberichte*, lxiv. p. 284) that they retain their glycogen more tenaciously than the liver, for a considerable amount of glycogen has been found in the muscles of starved animals after it has entirely disappeared from the liver, and muscles are found to retain their irritability as long as glycogen remains present in them. In the embryo, nearly all the tissues are found to contain glycogen. In fact, wherever future growth or work is to be provided for, there glycogen seems to be accumulated.

The first question which presents itself in the study of glycogenesis is: What is the origin of glycogen? The experiments of Dock, already reported,* have shown that the ingestion of glucose increases the amount of glycogen in the liver, and point to the direct transformation, by a process of dehydration, of the former substance into the latter. This view derives confirmation from the experiments of Schöpfer (*Archiv für exp. Pathologie*, i. p. 73), who, following the lead of Bernard, injected a solution of glucose into the crural vein of a rabbit, and found that glycosuria resulted, while a similar injection into a radicle of the portal vein had no such effect, provided that it was not made too rapidly. It seems, therefore, that the liver has the power of removing from the blood, and storing up in the form of glycogen, the glucose brought to it from the intestine by the portal vein. This power is, however, not unlimited; for, if the sugar be brought too rapidly into the portal system, either by absorption (Bernard, *Revue Scientifique*, ii. 1066) or by direct injection, a portion of it will pass unchanged through the liver, reach the general circulation and be excreted by the kidneys. A similar effect may be produced by a ligature on the portal vein (Bernard, *Revue Scientifique*, ii. 1108). Here the sugar absorbed from the intestine reaches the general circulation by collateral channels, causing glycæmia and glycosuria. In this connection, it is interesting to note a case of diabetes reported by Andral, in which the autopsy showed obliteration of the portal vein. It should be mentioned here that the blood of the portal vein seems to contain sugar in an appreciable amount only while digestion is going on.

Many observations seem to show that the glycogen of the liver may also be formed from albuminoid substances. Bernard has shown that the liver of a dog fed upon lean meat contains a much greater quantity of glycogen than that of a fasting animal. Starving dogs, fed on gelatine and fibrin, have also been found to have an increased amount of glycogen in the liver. In the report of January, 1873, reasons were given for supposing that a certain amount of albuminoid material is absorbed unchanged from the intestine and is used for the formation of the tissues, while the peptones, after absorption, are not reconverted into albumen, &c., but, by successive decompositions, reach the form of urea and are thus excreted. A natural extension of this hypothesis is, that the liver is the organ where the decomposition of peptones chiefly takes place, and that glycogen is the form in which the non-nitrogenous products of this decomposition are stored up. The occurrence of nitrogenous substances in the bile may be regarded as an argument in favor of this view. On the other hand, it has been found by Weiss (*Centralblatt für die medicinischen Wissenschaften*, 1873, p. 552) that hens, kept on a diet of fresh meat and fibrin, lose nearly the whole of the glycogen from their livers. How far this is to be regarded as indicating a fundamental difference between birds and mammalia is a question to be settled by future investigations.

There seems to be a pretty general agreement among those who have occupied themselves with the question of glycogenesis, that fatty substances in the food do not give rise to glycogen in the liver. It has, however, been shown by Luchsinger (*Pflüger's Archiv*, viii. 289) that glycerine, when taken into the stomach, causes an increase of glycogen in the liver; owing, probably, to a direct transformation of

* This JOURNAL, January 23, 1873.

glycerine into glycogen, and not, as Weiss (*loc. cit.*) supposes, to the glycerine being used up in the place of the glycogen, thus allowing the latter to accumulate. It seems, therefore, probable (though not yet demonstrated) that the ingestion of fats may produce a similar effect, for Kühne (*Physiologische Chemie*, 1868, p. 125) has shown that the pancreatic juice has the power of decomposing neutral fats into fat acids and glycerine.

Whatever may be the particular articles of food which give rise to the formation of glycogen in the liver, there is no doubt that it accumulates in well-fed and disappears in starving animals. A change into glucose is, moreover, a necessary preliminary to its removal from the liver.

The next question, therefore, is: how is this change into glucose effected? That it is a process of fermentation is universally admitted. That the ferment which produces the change is brought to the liver by the blood seems pretty well established, for the observations of v. Wittich (*Pflüger's Archiv*, vii. 28) and others, that a change of glycogen into sugar takes place after the vessels of the liver have been washed entirely free from blood, cannot be regarded as proving that the ferment is formed in the hepatic cells, since, as pointed out by Plosz and Tiegel (*Pflüger's Archiv*, vii. 391), the process of washing out the liver with pure water, as practised by v. Wittich, is well adapted to dissolve out the ferment from the blood globules, which are supposed to contain it, and fix it in the coagulating hepatic parenchyma.

Since, therefore, the ferment in question is contained chiefly, if not wholly, in the circulating blood, it is evident that anything which causes an increased flow of blood through the liver will, by bringing a larger amount of the ferment into contact with the glycogen, produce an increased formation of glucose. If glucose be thus formed in excess of the needs of the system, so that it accumulates in the blood to an amount greater than one-third of one per cent. (Bernard), it will be excreted by the kidneys, and glycosuria will result. Now, an increased flow of blood through the liver may be caused in various ways. In the first place, the stoppage of any of the larger arteries will, by raising the blood tension, force a larger supply of blood through the liver, the calibre of the hepatic vessels being supposed to remain unaltered. This is probably the explanation of the diabetes observed by Schiff as the result of ligaturing large vessels. A rise of blood tension, also, is probably the cause of the diabetes which has been observed in the convulsions of asphyxia (Pavy, *On Diabetes*, pp. 62, 68 and 145) and epilepsy (Trousseau, *Clinique Médicale*, 3d ed., ii. p. 736).

A dilatation of the hepatic vessels, the blood tension remaining the same, will also cause an increased flow of blood through the liver. This dilatation may be the result either of direct or of reflex paralysis of the vaso-motor nerves of the liver. A direct paralysis of these nerves is the probable explanation of the diabetes caused by the section of the anterior columns of the cervical cord (Schiff, *Zuckerbildung*, p. 108), or by extirpation of the last cervical and first dorsal sympathetic ganglion (Cyon and Aladoff, quoted by Brunton, *British Medical Journal*, 1874, p. 39). The experiments of Cyon have rendered it probable that these lesions affect chiefly the size of the hepatic artery, causing little or no change in the calibre of the portal vein.

A reflex paralysis or inhibition of these vaso-motor nerves may be produced by irritation of centripetal fibres in the vagus nerve, and glycosuria may be thus produced (Bernard, *Physiologie Experimentale*, i. pp. 334-339). The well-known effect of a puncture of the floor of the fourth ventricle in producing glycosuria is probably to be referred, in part at any rate, to an irritation of the vagus nerves at their origin, while the glycosuria sometimes noticed as the result of ether and chloroform inhalation (Schiff, *Zuckerbildung*, 124) seems to be due to an irritation of the same nerves at their terminations in the lungs. It would seem, however, from recent observations of Seelig (*Centralblatt für die medicinischen Wissenschaften*, 1873, p. 934) that the "sugar puncture" not only causes an increased change of glycogen into sugar in the liver, but also prevents the sugar which is brought to the liver by the portal vein from being stored up as glycogen in that organ. Seelig found that a starving animal which had received the "sugar puncture" showed little or no sugar in the urine, but that an injection of glucose into a mesenteric vein caused immediate glycosuria, while a similar injection into a starving animal which had received no "sugar puncture" had no such effect. Similar results were obtained by injection of glucose into the jugular vein, proving, according to Seelig, that "the diabetic animal is characterized by an inability to use sugar for the nourishment of its body." These results are hardly to be explained on the supposition that the "sugar puncture" causes merely a dilatation of the hepatic vessels, allowing more of the ferment contained in the blood to come in contact with the glycogen of the liver. Further experiments are needed, before any satisfactory hypothesis can be advanced.

The third question which presents itself in the study of glycogenesis is: What is the destination of the glucose which is formed in the liver in the manner above described? That the healthy organism is able to consume all the sugar formed within itself is evident from the fact that normal urine contains no appreciable amount of sugar. It would even seem from the experiments of Tieffenbach (*Centralblatt für die medicinischen Wissenschaften*, 1869, p. 179) that still larger amounts may be consumed, for it was found that *small quantities* of glycogen or glucose could be injected into the veins or under the skin without causing glycosuria. In what particular part of the body sugar is consumed is a question not easy to settle, for it has been shown that sugar disappears very rapidly from the blood when withdrawn from the body. Hence, the importance of the rule laid down by Bernard (*Revue Scientifique*, iii. 43), when testing the blood for sugar only to use warm blood fresh from the vessels of the animal. It is not improbable that a similar rapid disappearance of sugar takes place in the circulating blood, irrespective of the organs through which it circulates. There is, however, reason to suppose that a very considerable sugar consumption takes place in the muscles, for it has been shown by Genersich (*Ludwig's Arbeiten*, 1870, p. 75) that defibrinated blood loses sugar on being conducted through a dog's hind legs, freshly separated from the body, and still retaining their muscular irritability. This disappearance of sugar is, moreover, quite in accordance with what is known of the effect of muscular activity in increasing the exhalation of carbonic acid. It cannot be supposed, however, that glucose is directly oxidized to carbonic acid, for it has been

shown (Bernard, *Physiologie Experimentale*, i. 241) that blood shaken with oxygen does not lose its sugar faster than with other gases. Moreover, it has been found that as sugar disappears from the blood lactic acid takes its place, and muscles when kept in prolonged activity are found to have an acid reaction, due to the formation of lactic acid within them. There is, therefore, no reason to doubt that a change into lactic acid by a process of fermentation is the first step in the disappearance of glucose from the organism. This view is also in accordance with the observations of Scheremetjewski (*Ludwig's Arbeiten*, 1868, p. 114), who found that the injection of alkaline lactates into the blood caused an increased absorption of oxygen and exhalation of carbonic acid, while an injection of glucose had no such effect.

The experiments of Schultzen on phosphorus poisoning (*Zeitschrift für Biologie*, viii. 124, and *Berliner Klinische Wochenschrift*, 1872, p. 417) throw light upon this subject. The action of phosphorus is, according to Schultzen, to arrest the processes of oxidation in the organism, while those of fermentation go on unchecked. He finds that in animals poisoned by phosphorus "urea disappears from the urine, and is replaced by leucine and tyrosine, which, in the healthy organism, are converted into urea. No sugar appears in the urine, but a kind of lactic acid is found in quantities exactly proportional to the amount of sugar afforded to the animals by their food. This kind of lactic acid agrees exactly in its properties with the aldehyde of glycerine, and Schultzen considers the two bodies to be identical."* The production of this substance from glucose by a process of fermentation seems, therefore, to be a necessary preliminary to oxidation, and if for any reason this preparatory fermentation does not take place, the glucose, not being oxidizable as such, is excreted by the kidneys, and glycosuria results. This seems to be the case in some forms of diabetes, and in the experiments of Scheremetjewski, above alluded to.

To recapitulate briefly. The liver has two functions:—1st, that of forming and storing up glycogen; and, 2d, that of forming sugar again from glycogen. The muscles probably possess both of these functions, and also a third function, viz., that of changing both the sugar they form and the greatest part of that which they receive from the blood into lactic acid, which undergoes combustion.

Glycosuria may result,

1st, from failure of the liver to convert into glycogen the sugar obtained from the food, either because it is brought in too large quantities to the liver, or because the liver has not the power to effect the change in question. This may be called alimentary glycosuria, and may be prevented by avoiding saccharine articles of food.

2d, from an increased transformation of glycogen into sugar, due to accelerated circulation through the liver, or to a larger proportion of ferment in the organ or the blood. (The possible participation of the muscles in the production of both these sorts of glycosuria must be borne in mind.)

3d, from a diminished consumption of sugar in the organism, "due either (a) to insufficiency of the ferment, which should convert the sugar into lactic acid, (b) to an altered quality of the sugar which enables it to resist the action of the ferment, or (c) to diminished circu-

* Brunton's third lecture, loc. cit.

lation through the muscles preventing the sugar from coming sufficiently into contact with the ferment."*

Bibliographical Notices.

Responsibility in Mental Disease. By HENRY MAUDSLEY, M.D. New York: D. Appleton & Co. 1874. 8vo. Pp. 300.

This book belongs to the International Scientific Series, and is the most practically valuable of them all. It deals with a subject of vast importance to the public, as well as to the two professions of law and medicine. The law, in most countries, lags a long distance behind the advance of true science in this matter of insanity, and the public is in a deplorable state of ignorance on the subject, in spite of all that has been of late written and said. Both law and public opinion must and will, sooner or later, range themselves side by side with those of our profession whose duty it is to uphold what are generally considered unpalatable, not to say revolutionary, truths. All those doctrines of moral, partial and transitory insanity, of limited responsibility, of dipsomania, kleptomania, and the heredity of vice and crime which have been scouted in court and by the press, but upheld here and elsewhere by professional alienists, are simply expressions of scientific truth. They may have been crudely and inadequately presented, without a sufficient array of supporting facts, but they grew out of the *experience* of those who advocated them.

In this book of Maudsley, we find all those questions relating to responsibility in various forms of insanity ably discussed, with a power of argument and a wealth of illustration seen in no other writer, unless it be our own American authority, Dr. Isaac Ray. In the first two chapters, he considers the border land between sanity and insanity, and between the latter and vice or crime. Chapter III. is devoted to classification. In Chapter IV., the relation of the law to insanity is historically considered. Thanks to certain recent intelligent decisions in the Supreme Court of New Hampshire, the United States takes the lead in a rational and scientific treatment of this question. (See JOURNAL, May 15, 1873, p. 501.) After referring to *State vs. Jones*, *Boardman vs. Woodman*, *State vs. Pike*, and *State vs. Weir*, the author says:—"These American decisions are certainly an advance on any judgment concerning insanity which has been given in this country; they put in a proper light the relations of medical observation and law in questions of mental disease, and it cannot be doubted that future progress will be along the path which they have marked out."

In Chapter V., partial insanity is considered; and by this is meant disorder apparently confined to one of the three grand divisions of mind, or even to a limited range within such division. *Affective*, as distinguished from intellectual insanity, has two principal forms, viz., *impulsive* and *moral* insanity. The former is seen in simple melancholia and in *mania sine delirio*, in the form of suicidal and homicidal impulse. It is also seen as a transitory mania in persons inheriting an insane neurosis, or an epileptic neurosis, in the absence of any other distinctly marked evidence of insanity or epilepsy. There is nothing strange in this when we consider the impulsive tendency in all forms of insanity, amounting often to a true ideational instead of motor convulsion. Hegner, the murderer of Hüttel, while quietly disclaiming insanity and justifying his act as purely one of self-defence, suddenly sprang upon the expert examining him, and as suddenly relapsed into his former calm condition.

Moral insanity is seen as a *stage* of general insanity almost invariably, and when we remember the slow development of most mental diseases, it is not strange that many outbreaks of violence should occur before the intellect becomes visibly affected. Suicides in this stage are occurring every day, and

* Brunton, loc. cit.

the death of the sufferer cuts off the evidence of insanity which a few more weeks would have undoubtedly afforded. So, when homicide is the form taken by the insane impulse, the law steps in, sees no insanity, because there is no evident delusion, and hangs the patient off hand, likewise cutting off all chance of further evidence of disease. This policy is bad enough as at present applied to *mad dogs*; it is simply barbarous when applied to the human species.

The same blind haste has distinguished the law heretofore in dealing with all forms of vice and crime. Little allowance is to be made for morbid tendencies or inherited moral deficiencies. These questions will, however, continually force themselves upon public attention, until even the law takes careful note of them. Seclusion, more or less permanent, in proper institutions, under suitable medical supervision, must take the place of capital punishment, or of ordinary imprisonment, whenever insanity is present. It is then that the degree of responsibility in any given case can be most precisely estimated and the proper discipline administered.

In most cases of affective insanity, sooner or later, intellectual derangement occurs, either in the form of weakness or delusion. It may be for a long time of a character to escape notice. It may seem to warrant some interpretation consistent with sanity. The intellectual impairment is often *partial*, in that the patient seems to reason well, except on a certain subject. Even in that direction, he may seem to be only mistaken and not necessarily deluded, as in that common form of mental disease where the delusion is a belief in the unfaithfulness of husband or wife, or of hostility and persecution on the part of friends. Homicide is often the offspring of this sort of insanity. The motive may appear, or be made to appear by a zealous attorney, as natural and sufficient. It is a mistake, in such cases, to say the patient has a sane mind, "insane on one point." He has really an insane mind, which manifests disease, mainly in one direction. The soil from which the belief and the act grow is an underlying state of insane *feeling*, of morbid jealousy, suspicion, irritability, tending to acts of impulsive violence. The patient may seem to be affected by ordinary motives, may commit the deed with deliberation and conceal it with skill, and yet be only a *madman*, taking an *insane* revenge. If he is in a state of *alienation* from his mental self, the act cannot be *his*.

The fallacy of the legal dogma propounded by Hoffbauer, that an insane man's actions are the logical outcome of his delusions, is well shown in Chapter VI. It is not true that he reasons logically from insane premises, in most cases, and it is not safe to punish him for acts which cannot be shown to have a connection with his delusion. There is not only incoherence between his ideas, but between his ideas and acts. It is impossible to infer one from the other, or to predicate what a man will do, under certain delusions. Patients often reason insanely from insane premises, and act insanely regardless of their conclusions.

The delusions are often concealed so that the most skilful experts are unable to elicit them, or to disentangle the relations between them and the patient's conduct. For instance, a boy's insanity was chiefly manifested by an intense passion for wind-mills. He would sit all day watching them, and was sent from home to break up this apparently harmless fascination. Not long after, he set fire to a house, and subsequently horribly cut and mangled a child whom he enticed into the woods for the purpose. The connection between these acts and his *penchant* for windmills is not apparent, though in this case it was direct and simple. He expected to be sent back where there were windmills!

We have space only to commend this book to all classes of readers, and especially the closing chapter, on the prevention of insanity. T. W. F.

Electro-therapeutics: A condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: H. C. Lea. Pp. 186.

THIS little book is, considering its size, one of the very best of the English treatises on its subject that has come to our notice, possessing, among

others, the rare merit of dealing, avowedly and actually, with principles, mainly, rather than with practical details, thereby supplying a real want, instead of helping merely to flood the literary market.

The first thirty-eight pages are devoted to electro-physics, and contain an interesting examination into the enormous disproportion that exists between the amounts of absolute force which electrical currents, such as are used in therapeutics, actually represent, and the amounts that by their physiological action they are able to set free in the human body.

Thus, he says, (p. 22) that a current (from 50 small, galvanic cells) which in five minutes could decompose only about 6-1000ths of a gramme of water (with a resistance in the circuit comparable to that actually offered by the body) might, if applied in certain ways, keep a number of powerful muscles in continuous tetanus during the same time.

In the next thirty pages, the principles of electro-physiology are as clearly stated as the space admits, clearly enough to repay careful reading.

The remaining two-thirds of the book are devoted to diagnosis, methods of application, medical and surgical practice, cautions and apparatus.

The practical portion of the work, though in almost all other respects excellent, is not altogether free from the common fault of short treatises, that of attempting to cover the same field with long ones, often at the cost of making statements that mislead, because inadequate, and of passing too hastily over matters which might well be classed with "principles;" further, of giving too prominent a place to the triumphs won by electricity, in classes of cases where it has not, as a rule, proved of great service, or not to the extent that the text would indicate, or where it has not yet become possible to form an opinion.

The average reader has no means of judging of the credibility of authorities cited, nor how large—or small—a percentage "sometimes" represents, and desires to find in a good manual, especially one professing to deal with principles, a mirror of what his own experience is *likely* to prove, and, indeed, he always feels a little insecure, if he does not find a statement of the author's own opinion in each case. For example, p. 129, "chorea is sometimes benefited, &c.," would more fairly read, ". . . is generally not." Compare, also, cerebral and spinal congestion, &c., and spinal irritation, p. 121; paralysis of the bladder, p. 123; skin diseases, p. 134.

Dr. Lincoln's style is usually remarkably clear, and the whole book is readable and interesting.

Materia Medica for the Use of Students. By JOHN B. BIDDLE, M.D., &c. &c. Sixth Edition, Revised and Enlarged, with Illustrations.

THIS is a new edition of a well-known text-book. The author states that he has "bestowed unusual care upon the preparation of the present edition, having re-cast and often re-written the therapeutical articles."

Having a firm conviction that it is well to keep *materia medica* and therapeutics somewhat distinct in the minds of students, we may look upon this book, if to be used as a text-book, chiefly as a work on *materia medica*, properly speaking, and leave therapeutics, which no one would, from internal evidence, suppose to have been re-written for some years, on one side. A classification, which places oat-meal, Indian-meal, arrow-root and sugar among "demulcents" with liquorice, collodion, yeast and charcoal, cannot be considered as conveying any very useful ideas to the student or practitioner.

In matters of *materia medica* proper, we may simply remark that it is not very carefully written; the information is in the main correct, but one would hardly consult it in disputed matters, and it is not up to the present standard of pharmacy in some important particulars.

Thus apomorphia is spoken of as one of the original alkaloids of opium, and nothing is said of it among emetics. To give an instance, the discrepancies in observations upon *narcæia* are noted, but nothing is said of the probability that the substances experimented upon have not been the same.

The methods of giving phosphorus are very deficient. The dose of phos-

phide of lime is stated as one sixty-sixth of a grain, while it is usually given in the dose of one-tenth, and even this corresponds to a very small dose of phosphorus. The few pages devoted to mechanical remedies, pneumatic aspiration, heat, cold, and electricity are far too meagre to be of any practical value.

It is a pity the work is not accurate, careful and thorough enough to fill the place it is designed for.

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Thirty-third Annual Announcement of the St. Louis Medical College. 1874. Pp. 16.

Transactions of the Minnesota State Medical Society. Saint Paul. 1874. Pp. 86.

DERMOID CYST IN THE ANTERIOR MEDIASTINUM.—Heinrich Kückmann, of Marburg, has recently endeavored to cure a case of the above by establishing a fistulous opening externally. The tumor had been noticed for two years, and a mass as large as a goose's egg projected externally into the neck, on the left of the middle line, and pressed on the trachea. To confirm the diagnosis, a puncture was made in the neck; but, though it was kept open, it did not prove sufficient to drain the cyst. The cyst at last perforated a bronchus, and led to repeated attacks of pneumonia, whilst masses of hair were occasionally found in the sputa. Under these circumstances, the sternum was trephined immediately beneath the intra-clavicular notch, and by chiselling away the upper end of the manubrium, a hole was made *through the bone into the cyst*. As a result of regularly repeated injections of air through the wound made by the trephine, the material in the cyst and that which had escaped from it into the bronchus were removed by the expectoration of copious and offensive sputa, loaded with particles of hair. The second fistula was kept open by laminaria tents at first, and afterwards by inserting a canula. In spite of several relapses in the patient's general condition, the injections of air were regularly continued, in order to remove the putrid bronchial secretions and favor the expectoration of the masses of hair. The cyst still communicates externally, but it is now no larger than a walnut, and it is confidently expected that in time it will completely disappear.—*Medical Times and Gazette*, June 27, 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 23, 1874.

THE early accounts, which have come to us up to the time of writing, of the college sports, held during the past week at Saratoga, indicate clearly that the movement, inaugurated within a few years, on the part of the various colleges and universities by which a new impetus has been given to the college races, and also to manly sports of all kinds, has not yet reached that degree of organization which is necessary to insure success in the future, and is, indeed, in some danger of resulting in total failure, a result much to be regretted by all who rejoice to see that physical training is in a fair way to become a more popular element in the education of young men in this country. We allude, more particularly, to the mishaps which have occurred during the last few years, helping, in a great measure, to mar the success of the University boat race, and becoming a source of much heart-burning and disappointment to students who have devoted a great deal of their time and energies to preparation for the struggle. After the shortcomings of those who had charge of the races last year, it was hoped that every precaution would be taken on this occasion to ensure a fair trial of the strength and endurance of the various participants. And, so far as we can learn, everything was done that could be done consistent with the present mode of conducting the races. It is fair to suppose, therefore, that the system itself is at fault, and that various radical changes will have to be adopted to prevent a repetition of the confusion which attended the race this year. It is, doubtless, a difficult matter to conduct a contest with perfect fairness to all parties, where the numbers participating are so great, but there are certain obvious changes which, from the experience of the past years, will, we hope, suggest themselves to those who have charge of the races in the future. Among these may be mentioned the system of steering, which American oarsmen cling to so tenaciously, a most important element of success, and one which, in an unguarded moment, may set at naught the careful preparation and training of months. There are, doubtless, many other improvements which might be introduced by earnest reformers, and all efforts directed to this end we are sure would meet with hearty approval. The important bearing of these annual contests on the taste of our American youth for physical culture, and on their love for manly sports, cannot easily be over-estimated, and it is earnestly to be hoped that they eventually may become a permanent institution.

A CORRESPONDENT of the *Boston Evening Transcript* takes exception to certain "ill-natured flings" which he says have recently appeared in the columns of this JOURNAL against the good name of one "Dr." Basto. It would hardly require the intimation given in another part of the same paper to convince one that the writer is not an expert on the questions which have given rise to his communication. The want of knowledge which the "Doctor's" friend displays is so lamentable that a reply would hardly seem to be necessary were it not for the support which his accusations receive from the paper in which they appear. While we can admire the loyalty of the friend, and even make some allowances for his ignorance, we have no excuse to offer for a paper which ought to be able to take a more intelligent and impartial view of such a matter. The person in question was the representative of a certain class of men against whose practices the profession has a right to protest, and the press in this city is largely responsible for the fact that any adventurer, whether he happens to bear a Thompsonian or other so-called "sheepskin" in his pocket, or wears it only upon his shoulders, can claim equal rights with the most conscientious and thoroughly educated practitioner. Nor is the profession wholly without blame for this state of things; a little more education in these matters, which the profession itself has the power to convey, would, doubtless, prove wholesome to the reputations of some representatives of the press, whose proclivities are but too well known, and judicious legislation, now sadly needed, would drive away a large class of irregular practitioners who thrive upon an ever credulous public.

PATHOLOGY AND TREATMENT OF OVARIAN DISEASES.—(*Concluded from page 67.*)—Of the mysterious productions known as dermoid cysts, the only part of their history about which there can be any certainty is, that they are the result of change in an ovum. There may be a doubt as to whether the abnormality takes origin in an ovum of the individual bearing the tumor, or in the ovum from which she herself was developed; in other words, whether the tumors are abnormally developed or are due to inclusion. They do not originate from impregnation, since they have been found in newly-born children, and their most common seat is in the ovaries of young women, chiefly, according to Mr. Spencer Wells, of fair complexion. The author is also inclined to set aside the view of their origin by inclusion, as the ovary is the most unlikely structure in the embryo for such a process; and, if they had their origin in such a way, we ought to find dermoid cysts in the testicles of the male quite as often as in the ovaries of woman.

There is left, then, the explanation that dermoid cysts are the result of altered nutrition of one or more ova, usually of but one. They are generally unilocular. They have no analogy to cysts somewhat resembling them in structure occurring in other parts of the body than the ovary, especially in the neighborhood of the orbit. In these latter, we have only aberrations of the normal process of the involution of epithelium.

Dermoid and dentigerous cysts have been so frequently found in children, that it may be suspected that, if their histories could be traced, they would

be found to be, as Paget suggests, either congenital or originating very early in life. It seems impossible that new tissues, so strange and displaced, should be developed after the formative powers have ceased to produce new tissues in normal positions. It seems far more simple to explain the occurrence of dermoid cysts in the ovary by hyperechetic action of an ovum at a time of life when such processes are in vogue in the economy, than at some other time when they have entirely ceased everywhere else. Fully dilated Graafian follicles have been seen in the ovaries of newly-born children containing ova which are minute, transparent and structureless cells, and the formation and destruction of ovarian cells goes on from the earliest to the latest period of existence. Supposing that, during the developmental period of life, some stimulus be given to one Graafian follicle and its contained ovum, which, for want of better knowledge, we call accidental, and that this should lead to the premature maturation of the ovum, so that, were the rest of the organism ready for the process, it might be carried into the uterus and there impregnated. Instead of destruction by rupture of the ovisac, supposing that it remain in the ovisac and share alike with the rest of the economy in developmental activity, there can be only one result, and that is the formation of structures in an incomplete way, which it would evolve completely under more favorable conditions. The usual age for dermoid cysts to come under the notice of the surgeon is from 17 to 20 years, and then it is generally certain that they have been long in existence. After puberty, the recurrent congestion of the whole sexual apparatus must stimulate into growth what is in readiness for it after having been developed long previously. Dermoid cysts, then, are believed to be the result of hyperechetic development of an ovum in fetal or infantile life, growing into a tumor during and immediately after puberty.

Of the modes of origin of the other forms of ovarian cystic tumors, the explanations are too vague and incapable of ready demonstration to commend themselves to practical minds. All non-cancerous tumors of the ovary may be considered adenoid, for they are the result of increased growth of one or other normal constituent of the gland, without alteration, save in quantity. The common form of cyst-growth in the ovary consists in the dilatation of a physiological cyst-cavity by its own secretion poured out to an abnormal extent; and this secretion may be altered by the addition of blood or of some of its usual or exceptional albuminous products. The multiple adenoid and dermoid cysts have already been considered, and we look to another altered condition of the cell-elements to explain the remaining variety of cystic tumor of the ovary, termed by Mr. Wells and others "proliferous." To this term "proliferous," Mr. Tait objects, for it assumes what is not true, that the large cysts are the parents of the small ones. The minor cysts are secondary in point of time, but they are younger brothers and sisters, not the children, of the larger sacs.

The formation of a compound cystic tumor in the ovary may be well illustrated by blowing soap-bubbles in a basin. If the fluid be not viscid enough to enable the bells to retain their form, then the normal condition of the ovary is represented, its cells bursting and disappearing. The cell-growth is constantly going on, and there occurs some alteration in the state of matters which prevents the cell-walls bursting; the fluid in the basin is so viscid that the bells do not break, and bubble after bubble is formed, some larger, some smaller, until a large, multicystic tumor is the result. The actual appearances of the cystic ovary may be very well imitated in the basin of soap-foam. A large cyst can be made with little ones crowding into it, and the walls between two or three may be broken down, making one larger multilocular cyst. In the ovary, we have the continued production of cells, representing the continuous blowing of the bubbles, and we have only to discover what it is that is analogous in the ovary to the increased viscosity in the solution of soap; what it is that keeps the cysts in their entirety, preventing a physiological into a pathological process.

The fact that he has never found ova in any of the sacs of these multicystic tumors has led the author to entertain the opinion that in this we have an explanation of their formation. The function of the ovary is one of cyst-

formation from its earliest to its latest existence, and in its pathology we need not go far away from its physiology. The aim and object of this cyst-formation is the production, maturation and discharge of the ovum. But, if the ovum be not found, or if it be produced only to a rudimental extent, may it not happen that the cyst will not be ruptured, but go on aimlessly expanding? Whatever be the source of the change, it does not affect one ovisac alone, but it may influence many of them; whether it be in a tumor where the ova have been matured and subsequently prevented from escaping by sclerosis of the coat of the ovisac, or in a growth where the ova are not to be found. There is a great clinical difference between these two kinds of tumor; for in one the growth is very limited and slow, and in the other it may be, and often is, extremely rapid, and is practically unlimited in extent.

Correspondence.

DIRECTIONS FOR RESTORING PERSONS APPARENTLY DROWNED.

MESSRS. EDITORS.—We have not an original copy of the Massachusetts Humane Society's directions for resuscitating those apparently drowned, but, in some of the newspapers, a paragraph has been recently printed, purporting to be a genuine transcript of that Association's circular, issued October 1, 1855. The writer of this article sent to one of the papers a statement of the errors in these directions; but as no notice has been taken of it, it is worth while to print it in this JOURNAL. The following is the rule, as laid down in the papers:—

“Convey the body to the nearest house, with head raised. Strip and rub dry. Wrap in blankets. Inflate the lungs by closing the nostrils with thumb and finger, and blowing into the mouth forcibly, and then pressing with hand on the chest, and so on, for ten minutes, or until he breathes. Keep the body warm, extremities also. Continue rubbing—do not give up so long as there is any chance of success.”

Error 1st. The body should not be allowed to remain without attention long enough to carry it to any house. Half a minute of time lost in carrying it may determine the death of the body.

Error 2d. The head should on no account be raised, but the shoulders should. Raising the head may be the means of preventing a gasp for breath.

Error 3d. The direction for inflating the chest, if followed, will, in a large majority of cases, be the means of blowing up the stomach, and diminishing the chance of getting air into the lungs. Any medical man who has tried to inflate the chest of a still-born child knows the absurdity of the direction.

The trunk should be raised to an angle of 120 or 130 degrees, the flexion being at the hip-joints. The head should be allowed to fall back between the shoulders, so as completely to close the entrance to the stomach. Now, if the nostrils be closed, the lungs may be inflated by blowing into the mouth. To do this in the most easy manner, a dry towel or other cloth of linen or cotton may be thrown over the face, by which the nose may be held more easily than with the bare fingers; through this the current of air may be more easily thrown into the chest, the two mouths being more perfectly packed together.

The remainder of the directions are well enough. Remember that a still child has been made to breathe an hour after it was supposed to be dead.

C. E. B.

EPILEPSY IN A CHILD; DEATH.

MESSRS. EDITORS.—The history of the following case, transcribed from my case-book, presents some phenomena that have interested me because they are not mentioned in the books to which I have referred, and they seem anomalous, though they may be familiar to the older readers of the JOURNAL.

S. K., æt. 2, Salem, 3d November, 1873. Large head, but well-formed; flabby flesh, with white skin; large trunk, small legs. Is beginning to walk. Appetite good. Bowels inclined to be constipated. Sleep restless. Pupils normal.

From no known cause, since his fourth month, has had from two or three to six or more spasms every day. They are preceded for some minutes by his picking his fingers and twining them together. Will fall to floor unless caught up by mother. Eyes roll up, no frothing at mouth, straightens out for three or four minutes, then puts hands to head, as if in pain there, and afterwards goes to sleep.

Child takes no notice of objects, as toys, &c., or of children.

He is in almost constant motion. Moves head continually from shoulder to shoulder, or shakes it as in emphatic negation, and, when walking or standing, body sways from side to side, as he lifts first one foot and then the other, which gives rise to a waddling gait.

Paternal grandfather began to have "fits" at the age of twenty years, which, under quack treatment, ceased for nine years, when they recurred. Latterly, the paroxysms were so violent as to require several men to restrain him. Would bite tongue, and foam at mouth. He died at an asylum for the insane. An infant brother of this child also died of "fits."

Ordered Dr. Brown-Séquard's mixture.

29th December.—Now sleeps well. Has "fits" less frequently than formerly, but they are more severe and are accompanied by stronger convulsive contractions of the limbs. Seems well nourished, and is growing fast.

In March, he had a convulsion in the night that lasted fifteen minutes, with foaming at the mouth.

In May, at solicitation of mother, omitted the bromides, &c., and ordered *zinci oxidum*. Child now says, "Mamma," and seems to recognize persons. Cries to go out of doors. Is not yet able to handle a spoon or feed himself, nor does he have a taste for toys or childish sports. Continues the movements of head and body. Still has two or three light spasms daily, when he becomes rigid, and falls unless prevented.

June 21st.—Was more restless, but appeared as well as usual during the day. At 5.45 o'clock, P.M., he awoke from a nap, frothing at the mouth, and passed into general convulsions. Right side of face first drawn up, so attendants state. Half an hour after, found pupils widely dilated, with anaesthesia of the cornea, pulse 200, and perhaps more, with convulsive working of facial muscles, and, to a less extent, those of the rest of the body. Face pallid (and so remained), surface of body hot and bathed in sweat. Respiration labored and stertorous. From time to time the spasmodic action would cease, only to return as severe as before. Ordered a tepid bath and cold to head. At 9 o'clock, P.M., as condition had not changed, allowed patient to inhale a little ether, and the twitchings soon stopped, the respiration became as natural as the mucus in the air-passages would allow (which was so abundant as to flow freely from the mouth), while the pupils contracted to their ordinary size. Thinking the danger over, I left.

According to the accounts of persons present, the convulsions speedily reappeared, and with such force as to necessitate the restraining of the sufferer's arms and legs, till he died, at 11.45 o'clock, when the convulsive seizures had lasted six hours.

Tanner and other observers speak of what appears to be but a stage of epilepsy, which they term *eclampsia nutans*, and which is characterized by a frequent bowing or nodding of the child's head. Though this patient's head did not nod, the same general symptoms were presented as in the *saluum convulsions*.

In this case, it is not improbable that death was occasioned by apnoea, due to the prolonged duration of the attack and the accumulation of mucus in the mouth and larynx. Unfortunately, however, it was not possible to make an autopsy.

Yours very truly,

Salem, July 5, 1874.

DAVID COGGIN.

ANOTHER OBSTETRIC BINDER.

ERIE, PA., July 13, 1874.

MESSRS. EDITORS,—In your two last numbers, I find articles on the "obstetric binder." I think I have one much better than the "twisted sheet," though I must confess I took it from the sheet as seen in France before I came to this country. Allow me to describe it.

It consists of a leather back-pad twelve by eight inches, two straps nine feet long, each attached to the upper corner of each side of the pad, and short straps furnishing stirrups to fit the entire foot, which can be lengthened or shortened as needed. The ends of the long strap are thrown around the foot-posts and returned to the patient's hand. These, while her feet are in the stirrups, enable her to push and pull as much as she desires. I find it expedites labor very much, and I would not be without one. Do not confound this with the old fashioned "harness."

Yours truly,

I. N. LABARTE, M.R.C.S.I.

Medical Miscellany.

It is stated that the negotiations with von Recklinghausen for Rokitansky's chair have been again broken off—this time, it is believed, finally.—*Philadelphia Medical Times*.

It is a matter of regret that we have not a law in this country similar to the 40th clause of the Medical Act of England which provides that "Anyone who shall wilfully and falsely pretend to be or take the name or title of a . . . doctor of medicine . . . or any name . . . implying . . . that he is recognized by law as a physician . . . or a practitioner in medicine," shall pay a sum not exceeding £20.

ACCORDING TO THE *Philadelphia Medical Times*, Mr. Erichsen is soon to visit this country. He will leave England on the 30th of July, and after spending a few weeks in Canada, where he has friends, will visit the United States.

THE profession in England have been somewhat startled to learn that English surgeons and physicians are not allowed to practise their profession in Chili. The Dean of the Chilian Faculty of Medicine has refused to allow British physicians to practise because "medical knowledge imparted in Great Britain was greatly inferior to that required before a degree of Doctor of Medicine could be obtained in Chili." This must, indeed, be "somewhat astounding" news to Englishmen. Whatever the merits of this particular instance may be, we are glad to hear that they have a standard in Chili, and should be still more content to learn that America had, although tardily, followed the example of other nations in this respect.

¶ RETRO-PERITONEAL HERNIA.—Professor Waldeyer, of Breslau, publishes an article on this subject in *Virchow's Archiv*:—

An account is given of the *post-mortem* examination of a robust man, æt. 40, who died of double pneumonia. There was found a perfectly-developed, retro-peritoneal hernia, which comprised the whole of the small intestines. The colon occupied its normal position. The great omentum, rather fatter than usual, concealed the small intestines; when this was reflected, it was seen that the coils of bowel were enclosed in a rather thick, whitish sac, which included the whole mass of the small intestine. This sac had both the appearance and the structure of serous membrane, and was closely connected on all sides with the parietal peritoneum of the posterior wall of the abdomen, as well as with the peritoneum of the ascending and descending colon, its structure and texture being identical. It had numerous vessels of its own, with ramifying fat; it was quite transparent, and free from any signs of peritonitis. A median incision made it easy to remove the mass of intestine. The mesentery was normal. From the interior of the sac, it was easy to

discover that its neck corresponded to a point very nearly opposite the cæcum. The lower end of the ileum passed through this, and dragged upon the cæcum. The opening was nearly circular, as large as a two-thaler piece; its edges slightly thickened. The inferior mesenteric vein arched over the upper edge and free border of the opening. There were no signs of strangulation, and the coils of bowel could be easily drawn into and out of the sac. The bowel had forced its way into the duodeno-jejunal fossa, and had gradually pushed the right fold of the descending mesocolon before it, and thus formed a sac for itself. The neck of the sac had originally lain higher, at the junction of the duodenum with the jejunum, and had thus been forced lower with the weight of the mass. Waldeyer thinks the inferior mesenteric vein might easily have given rise to a constricting ring at the neck of the sac.—*The London Medical Record*, June 17, 1874.

NOTES AND QUERIES.

A QUERY CONCERNING "QUAKER BITTERS."

MESSRS. EDITORS,—I have a few questions to ask about an advertisement of bitters, which is somewhat scattered about. It contains a certificate. This certificate contains names and titles. It purports to be from *Prof. Hayes*. It is signed S. Dana Hayes, 20 State St., Boston. Who is *Prof. Hayes*? Is he *Professor* in the same college that made Dio Lewis a *Doctor*? Who is J. A. Brodhead, Esq., State Commissioner of Massachusetts? And in what department is his commissionership? The certificate says, that quaker bitters is an "official medicinal preparation." What does an "official" preparation mean? Has some one been trying to insult and injure S. Dana Hayes, State Assayer and Chemist, by calling him *Professor* sarcastically? and by making him appear to say what he never would have said, and never could have said, that quaker bitters is an "official" preparation, because it never was and never will be?

QURE.

CASTANEA VESCA IN PERTUSSIS.

MESSRS. EDITORS,—Advise your readers to make trial of the leaves of the edible chestnut, *castanea vesca*, in cases of whooping cough, and report the results. A hot infusion, three or four drachms to the pint, well sweetened, may be given to a child, as much as he will drink during the day. See U. S. Dispensatory, page 1558 (13th ed.).

The remedy is better known by the druggists than by physicians, and the leaves, fresh and dried, or an extract, are extensively sold in New York and Philadelphia for the alleviation, if not cure, of pertussis. Mr. Markoe will soon have ready an extract of chestnut leaves, which it is hoped will prove as satisfactory a remedy in the hands of others as it has in the practice of

C. E. S.

July 13, 1874.

ERRATUM.—On page 80, twelfth line from the bottom, for "movements" read *consonants*.

MORTALITY IN MASSACHUSETTS.—Deaths in twelve Cities for the week ending July 11, 1874.

Boston, 105; Worcester, 10; Lowell, 19; Salem, 5; Lawrence, 15; Springfield, 3; Gloucester, 4; Fitchburg, 3; Newburyport, 3; Somerville, 8; Fall River, 17; Holyoke, 5. Total, 197.

Prevalent Diseases.—Cholera infantum, 21; consumption, 20; pneumonia, 13.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 18th, 132. Males, 66; females, 66. Accident, 4; abscess, 1; apoplexy, 1; disease of bladder, 1; inflammation of bowels, 3; disease of bowels, 1; inflammation of brain, 1; congestion of brain, 1; disease of brain, 4; cancer, 6; cholera infantum, 17; consumption, 21; convulsions, 5; cleft palate, 1; cyanosis, 1; debility, 3; diarrhoea, 3; dropsy, 1; dropsy of the brain, 1; diabetes mellitus, 1; epilepsy, 1; erysipelas, 1; exhaustion, 1; scarlet fever, 1; typhoid fever, 3; bilious fever, 1; disease of the heart, 5; intemperance, 1; jaundice, 1; disease of the kidneys, 2; laryngitis, 1; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 7; marasmus, 6; measles, 2; old age, 1; paralysis, 1; puerperal disease, 3; rheumatism, 1; sunstroke, 1; teething, 2; tumor, 2; tabes mesenterica, 1; whooping cough, 3; unknown, 1.

Under 5 years of age, 62; between 5 and 20 years, 7; between 20 and 40 years, 30; between 40 and 60 years, 20; over 60 years, 13. Born in the United States, 89; Ireland, 39; other places, 12.

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Original Communications.

ON THE GERM THEORY OF DISEASE.

. Read before the Massachusetts Medical Society, June 2, 1874.

By E. P. HURD, M.D., of Newburyport.

ON the surface and in the midst of a fluid containing organic matter undergoing decomposition are seen, with a powerful microscope, swarms of living particles, first called, by Mulder, monads. Some of these resemble minute granules, with Brownian movement, while the greater part look like tiny infusoria, and have an active motion of their own. Multitudes of short, staff-like bodies are present, and if the liquid shall have stood some time in a warm room, freely exposed to the air, little living things of a variety of shapes will have made their appearance. Prof. Cohn, in common with many others, arranges all these living particles under the genus *Bacterium*. Bechamp calls them microzymes. It is not necessary that the putrefying fluid shall be exposed at all to the air. You may tightly cork a perfectly fresh organic infusion, that to-day contains no infusoria, or even germs that are to be seen, and in a few days you will have the liquid swarming with living things.

Whence come they—the “infinitely little”? Are they animal or vegetable? This is a question on which there is a number of opinions. We have, first of all, the theory of heterogenesis, represented by Bastian, Huizanga, and Bennett.* The monads are the direct products of the transformation of the organic elements themselves. The granules of the living organism become the “microzymes” of decay and decomposition. The anatomical units of health become the bacteria of putrefaction. The most ardent panspermist now recognizes similar changes as a datum of science. Nobody, at the present day, expects to find a vegetable origin for cancer and tubercle. The anatomical elements of these diseases are now known to be derivable from the tissue elements of the part affected.† Moreover, all are agreed that the blood bioplasts of health—those white corpuscles of whose function we knew so little in our earlier student days—become the pus corpuscles of inflammation; these are

* See Edinburgh Medical Journal, March, 1868, for Bennett's views of the origin of Infusoria. He believes himself to have had experimental proof that all infusoria, vegetable or animal, in fermenting or putrefying liquids, originate in oleo-albuminous molecules which are formed in the fluids, and which, floating on the surface, form a proligerous pellicle. These molecules, by their coalescence, produce the lower forms of vegetable and animal life. He says he has observed their conversion into bacteria and vibriones.

† Virchow's Cellular Pathology, Lecture xix.

changes no more easily understood than the conversion of the microzymes of health into the bacteria of disintegration.*

I may remark that, to the evolutionist, who believes that vital motion is simply molecular motion, this view presents no inherent difficulty. If vitality be only a condition of certain of the allotropic states of protoplasm, then it is quite conceivable that organic products, undergoing retrograde metamorphosis, might break up into lower compounds, some of which would manifest life in its lowest phases.†

The second view is that of the "panspermists." All the infusorial animalcules seen in putrefying or fermenting liquids are the product of *germs* (ova or spores), introduced into the organism from without. The air is the receptacle of these germs, and it is from the air that we get them. If it be objected that living things make their appearance in organic infusions that have been tightly sealed from the air, it is replied that these germs pre-existed, dormant, in the organic material, waiting to become developed when the conditions should be favorable. If it be objected that if these germs pre-existed there they ought to be discernible, the reply is that practised microscopists do often detect them, stowed away in convenient recesses in the tissues or lurking in the fluids, and that if they do not find them it is no proof that they are not there, in an embryonic condition, so infinitesimal that no microscope has ever discovered or ever will discover them. If there should still be manifested ought of incredulity, we are pointed to the extraordinary fertility of the lowest vegetable organisms, whose reproductive activity is sufficient to fill with spores the earth and seas and the high heavens.‡ These spores we may draw in with every breath, we may swallow with every draught, and "the higher life is everywhere interpenetrated by the lowest life."§

The popular view respecting the living particles seen in decomposing fluids is that they are *fungus germs*. These little animalcules, if you will give them a chance, will develop into *moulds*. Hallier, for instance, has given us a beautiful theory if it should ever be proved true. The microzymes of decomposing fluids he calls "micrococcus." "Micrococcus" is simply spore dust from certain moulds, and is regarded

* The above theory certainly commends itself for its simplicity. According to Bechamp, the body is made up of these little plastide particles or microzymes. When they act harmoniously, there is health, and the fermentative processes go on regularly, but when they act inharmoniously the fermentative processes are deranged, and there is disease. The microzymes, he says, are not ferments themselves, but they secrete the ferment, a special ferment being necessary to the performance of each physiological function; they moreover produce bacteria, which latter are capable of returning to the microzyme state. After death, all organic matter returns to its original elements, and the microzymes are there to carry on the work of putrefaction.

† I am half persuaded that the views of the heterogenesisists are destined ere long to prevail, yet in the present state of science it does not seem to me that we are warranted in accepting spontaneous generation as a datum of science. That living matter may, under suitable conditions, appear *de novo*, seems at least very probable, and that some, perhaps the larger part, of the bacteria seen in decomposing organic fluids may be heterogenetic transformations, carries a greater *prima facie* evidence of probability than the negative. This view could be maintained in entire consistency with the more popular view that the higher life is pervaded by the lower life, the microzymes of the highest and the lowest organisms being indistinguishable by the microscope.

‡ "That fungi should spring up everywhere, under fitting conditions, is readily explained by the enormous quantity of fruit which they produce. The dunghill *Peziza* sending its sporidia from its hymenium in a steam-like cloud may convince us of the powers of transmission which they possess, and a number of equally cogent examples might be adduced. A single *Lycoperdon giganteum* alone produces myriads of seeds."—Berkeley's *Cryptogamic Botany*, page 258.

§ Beale. *Disease Germs*, Part I, page 64.

as the principal agent in putrefaction. If the micrococcus comes in contact with substances that are capable of undergoing the alcoholic fermentation, its aspect changes, and it now appears under the familiar form of "torula," called by Hallier "cryptococcus." Sufficiently exposed to the air, *micrococcus* forms filaments of bead form, and is known as *bacteria*. Finally, sown on moist animal or vegetable substances, it developes into various aërophytic or anaërophytic molds. This theory, specious as it is, lacks sufficient confirmation. It is enough to refer to the recent investigations of M. Baudouin* to show that results negating those of Prof. Hallier have been obtained by accomplished experimenters. Thus Baudouin, while failing to find any of Hallier's specific fungi in the cultures of contagious matter, affirms that bacteria are not fungus germs, but a transition between algæ and fungi. Prof. Lister, of Edinburgh, has arrived at similar conclusions.† His experiments indicate a curious series of changes on the part of microzymes, in accordance with the media in which they are placed. In Pasteur's solution, bacteria were seen to grow as motionless algoid threads with nucleated segments. In turnip infusion and in urine, under suitable conditions, they were seen to assume the characters of torulæ, a transformation to which Hallier also testifies. More minute species, first seen in milk, developed in urine into spirillum, which, on being introduced into turnip infusion, grew into fungoid forms, which, on being introduced into urine, reproduced the moving spirillum; as time passed, growing a smaller and smaller progeny, till they lost their spiral shape, and returned to their original form of minute bacteria.‡

Another independent observer, Madame Johanna Luders, in an interesting monograph, affirms that she has repeatedly witnessed the formation of bacteria and vibriones from the protoplasmic contents of well-defined spores of various fungi, in putrefactive fluids.§

The practical results of all these investigations may be thus epitomized. The living particles seen in decomposing organic fluids, if not precisely such transitional fungus forms as Hallier defines them to be, are, nevertheless, cryptogamic germs having a very close relation to fungi.

Admitting the cryptogamic origin of these living monads, what is their relation to fermentative and putrefactive changes out of the living organism? What is their relation to the organism in health? What is their relation to the organism in disease?

I. The term *fermentation* is now generally used in a somewhat restricted sense to denote the decomposition of ternary organic substances, their descent to a lower chemical plane, with evolution of carbonic acid, but without the evolution of any gases of offensive odor. When azotized organic compounds of higher molecular and chemical complexity disintegrate, their dissolution being attended with evolution of gases of offensive odor, we speak of the change as putrefaction.

It may be perfectly legitimate to speak of all internal changes taking place in organic substances as *fermentations*. The term would

* Culture des Infusoires. Paris, 1870. (Published in Coze and Feltz's book on Infectious Diseases.)

† "On the Germ Theory of Putrefaction," &c. Nature, July 10-17, 1873.

‡ Loc. cit. Second Paper.

§ Rindfleisch's Pathological Histology. Am. Ed. 1872. Page 32.

then include such isomeric transformations as that of starch into grape sugar by the ptyaline of *saliva*, the formation of oil of bitter almonds from amygdaline, due to the action of emulsine, and in fact all physiological and pathological changes taking place in the blood owing to natural or morbid influences. It seems to me, however, that it will be conducive to clearness and precision if the term be used in the limited sense of our latest chemical text-books.*

There is a marked resemblance between fermentation and putrefaction in the multitude of living particles which are developed during those processes. That fermentation is the result of disturbances set up in certain organic solutions by *torulæ*, has been pretty generally conceded since Cagniard de la Tour first demonstrated that yeast was composed of a multitude of minute vegetal organisms. That the various fermentations cannot be excited without such organisms, is now almost universally admitted, explain as we may the manner of action of the *torula*.† Moreover, the experiments of Helmholtz, Schroeder and Dusch have proved that the same relation holds between putrefying substances and the microscopical organisms that are found in them.‡ “It is now settled,” says Prof. Cohn, “that without bacteria no putrefaction, and without yeast fungi no fermentation, takes place; that this decomposition is effected only through the sustenance and living activity of these microscopic cells.”§

II. The question what relation these microscopical beings sustain to health is quickly answered.* All the higher organisms seem to be indifferent to them. With an atmosphere charged with cryptogamic germs, as well as other organic particles, whose presence in the ordinary air of respiration has been lately demonstrated by Prof. Tyndall, we yet live and enjoy health, in spite of the rust and blight, and mould and mildew we inhale in almost every breath. Are we not daily exposed to the attacks of fungi akin to those found by Hallier in his cultures, and seemingly quite as terrible, and do we not, with impunity, pass the ordeal? Hallier’s parasites seem to be, mostly, varieties of ordinary fungi?|| How do we reconcile this with their banefulness?

Furthermore, there is reason to believe that in all healthy tissues and fluids vegetable germs exist, which, under favoring conditions, form mycetal growths, and facilitate disintegration. Beale, who is one of the most trustworthy observers, assures us that he has seen in old epithelial cells from the mouth of healthy persons, and from other mucous surfaces, germs precisely like those figured bodies represented in cholera dejections and the blood of cattle plague, by the advocates of the germ theory.¶

In fact, if portions of the blood or secretions of a healthy person be exposed in culture apparatuses to filtered air, they will, in warm

* Much of the obscurity that invests recent foreign works on the Germ Theory is owing to this vague use of the word *ferment*.

† See this subject, admirably treated by Huxley, in the *Contemporary Review* for August, 1872. Article “Yeast.”

‡ Huxley’s *Lay Sermons*, p. 360.

§ *Nature*, Jan. 2d, 1873.

|| If we consider the great range of variability which characterizes the lower cryptogams, and that they vary according to the kind of soil on which they grow, and according to hygrometric and atmospheric conditions, we shall not be surprised to find a few common species giving rise to a multitude of different forms. This renders all attempts to classify these thallogens well nigh hopeless.

¶ *Disease Germs*. Part I. p. 64.

weather, be soon found swarming with "micrococcus," and if these putrefying fluids be "sown" on suitable soil (*a la mode Hallier*), you will soon have an abundance of fungi, and most choice varieties.

Filiform cells and the interwoven tissue are almost the sole element of the fungi.* They derive their nourishment from the matrix on which they grow, and hence they are, as a rule, *epiphytes*. Yet their leading characteristic is that they feed on dead or decaying substances. It is true that there are exceptions to this:—that the *Botrytis Bassiana* produces that fatal disease muscardine in silk worms; that the *Sporendenema Muscæ* makes fatal ravages among the house flies at certain seasons; that numerous skin diseases in the human subject are due to vegetable parasites, as favus to the achorion *Schœnleinii*; *Sycosis menti*, *Herpes circinnatus*, and *Herpes tonsurans* to the *Trichophyton*; *Porrigio decalvans* to the *Microsporon Audouini*; *Pityriasis versicolor* to the *Microsporon furfur*; it is also true that the aphthous patches of Muguet are composed largely of the *Oidium albicans*, and that *Leptothrix buccalis* causes the teeth to decay.

It is not, however, proved that such fungi ever find favorable conditions for their growth and development, except where vital activity is low, where decay or disease is already present, or where filth, in the shape of retained excrement, furnishes just the proper soil. It is also true that the whole tribe of rusts and mildews do attack vigorous plants. That the *Botrytis infestans* causes the potato rust, is well known. The *Oidium* of the vine has ruined vine growers in almost every country where the vine is cultivated.† It has been shown that every species of corn has its fungoid parasites. It is easy to understand why animals, and especially the higher members of the animal kingdom, with vigorous circulation, and organs of secretion and excretion in full activity, should be so much less liable to disturbances from such epiphytal growths. One fact is determined by sufficient evidence. The inoculation of a healthy person with bacteria, or supposed fungus germs, is not necessarily dangerous. One may eat most of these moulds with impunity. The Kalmuck Tartars live on raw, putrid fish, or flesh of carrion, and they are said to be a healthy race.‡ The vital activity of the tissues is sufficient to preserve for a long time the fluids they contain from putrefactive changes. To quote from Golding Bird: "The blood in a vessel, even when its motion is prevented by ligature, does not *change*, in a space of time sufficient to convert it, if removed from the vessel, into a putrescent mass. The bile in the gall bladder, the urine in the kidneys and bladder, the fæces in the intestines, are examples of the same fact. This law even obtains in disease, for a serous or purulent effusion, the result of morbid action, will be preserved in the living cavities of the body unchanged, while a few hours would be sufficient to render it fetid and putrid, if exposed out of the body to the influence of a similar heat."§

III. In view of the obscurity that still invests the metamorphoses of the lower cryptogams, it seems to me premature to predict aught respecting the causal connection of certain fungi, obtained from cultures of contagious disease matter, with the diseases in question. There is no proof that all that have as yet been found are not accom-

* Schleiden's Principles of Botany. Article, Fungi.

† Berkeley's Cryptogamic Botany, p. 261.

‡ See Bastian's Appendix E to "Beginnings of Life," vol. ii. p. cxxiv.

§ Golding Bird on Urinary Deposits. Second Am. Ed., p. 223.

paniments, or effects, and not causes of the diseased conditions with which they are found associated.* Hallier has not yet completed the cycle of proof necessary to establish the causal nexus between one single disease and the micrococcus found with that disease. He has relied exclusively on what logicians call the method of agreement—the method of difference he has not tried. It is of little account for him to show that the supposed cause A always exists with the disease B, and hence B is the effect of A. Into a preëxisting set of circumstances where B does not exist he must introduce A and produce the disease. This he has not attempted, and hence his speculations are of little worth.†

There is a wide field for experimentation in the lower animals, open to those who believe that the so-called zymotic diseases are induced by fungi. Every species must be studied in its physiological effects on the lower animals, and these experiments must, as far as possible, be repeated on the human subject. It will then be determined whether these microphytes have any action on the healthy animal system, except so far as they produce a toxic effect. It will be seen whether the blood of a living human being really furnishes such a favorable habitat for the growth and multiplication of the “living ferments” as Messrs. Coze and Feltz, with other partisans of the “animated pathology,” seem to think.‡ That our knowledge of the fungi in their toxic and medicinal actions would be greatly extended by such a series of patient experiments is undoubted. Many of them are already known as powerful poisons, and some, as the *secale cereale*, have been utilized as medicines. The latter is no less notorious for the fatal gangrene it produces, when bread, made from the rye which contains the fungus in excess, is eaten. The fumes of the large puff-ball, *Lycoperdon giganteum*, have properties similar to those of chloroform,§ and the *Agaricus muscarius*, when dry, is a well-known promoter of intoxication.|| All these effects, however, are strictly toxic.

Moreover, before the animated pathology can be established on a scientific basis, it must be shown, as Ransie has clearly pointed out, that the infected atmosphere contains spores identical with those of the fungi obtained by the culture of the bacteria, and that the same spores are in every way like the elementary corpuscles contained in the morbid products.¶ It will now be seen what a hiatus remains to be filled, before the animated pathology can be accepted as accounting for the origin of contagious diseases in general. We have now to ask, does this specious theory lay valid claim to any one zymotic disease?

* “As soon as fungi have developed themselves freely in animal fluids possessing special contagious properties, such as vaccine lymph and smallpox lymph, the specific characters of the poison become weak or disappear.”—Beale’s *Disease Germs*, part i. p. 82.

† It is, moreover, noteworthy that competent experimenters as Bandouin, Engel, Coze and Feltz have repeated Hallier’s cultures, but without confirming Hallier’s results. Beale, the accomplished English microscopist, has also found reason to reject Hallier’s theories as utterly untenable.

‡ See Coze and Feltz. “*Recherches Cliniques et Experimentales*,” &c., p. 16.

§ Berkeley’s *Cryptogamic Botany*, p. 255.

¶ Prof. Schmiedelberg, in investigating the philosophical action of this mushroom, last year, noticed that, when given to animals, it caused great dyspnoea, and “at the same time the arteries became empty, so that, when cut across, hardly a drop of blood issued from them.” This latter is precisely the condition which exists in cholera. This favors the view that cholera is caused by a similar poison, and not by living cells, and shows the necessity of further investigation of the physical effects of fungi. See *Medical Times and Gazette*, October 11, 1873.

• *Du Rôle des Microzoaires et des Microphytes*, &c. Paris, 1870.

Huxley, in his celebrated address before the British Association, intimates his belief that the great problem will have to be solved for each zymotic disease separately. Here, then, is the place to speak of the indefatigable labors of our own countryman, Salisbury.

In the *American Journal of the Medical Sciences* for January, 1866, appears a somewhat remarkable paper, from the pen of Dr. Salisbury, who is professor in a medical college in Cleveland, Ohio. He claims to have made a microscopic examination of the expectorated matters, sweat and urine of patients in intermittent fever. He found an abundance of corpuscles, of an algoid type, resembling the lowest known vegetable organisms, the protococcus of Arctic snows; these he assigned to the group *Palmellæ*, giving them the generic name, *gemiasma* (meaning earth miasm). These palmelloid cells were found with wonderful constancy in the principal secretions of aguish patients, and corresponded exactly with cells obtained by suspending glass plates over broken ground at night, in places where malarious emanations were known to arise. He found the palmella encrusting the soil of aguish districts, and absent, both from the soil and the atmosphere, of regions known to be free from malaria. He determined the height to which the algoid corpuscles rise, giving a rational explanation of the experiential fact that regions above such level are free from ague. During the night, moreover, the air is more charged with these spores than during the day, as they are carried above the soil in the cold vapors, to fall to the ground during the sunshiny day, when the rarefied air can no longer hold them in suspension. This is his explanation of the fact that aguish districts are especially deleterious to night residents. The palmella is, according to Salisbury, the *materies morbi*, the *miasma vivum*. Not content with what the late Mr. Mill would style the method of agreement, he has endeavored to comply with the other necessary requirements of proof. He carried to non-agueish districts, from marshy ground, boxes of earth, covered with the unicellular vegetation, choosing hilly regions, free from malarious emanations, and on the sills of second-story chamber windows, exposed the boxes of pernicious earth. A plate of glass suspended over the boxes during the night was found covered with the palmella spores in the morning. Two young men, sleeping in the apartment, took the disease, the one on the twelfth, the other on the fourteenth day, no other members of the family being affected. In another similar experience, a young man and two children were exposed to the emanations from the palmella; the two children took the fever.* All this is very plausible, and it is to be desired that Salisbury's theory may be established by future observers, for then would the vexed question of malaria be settled. Salisbury's views are quite in accordance with those of some of the highest authorities. Thus Niemeyer (while ignoring Salisbury's experiments) has "no hesitation in saying, decidedly, that marsh miasm—malaria—must consist of low, vegetable organisms, whose development is chiefly due to the putrefaction of vegetable substances.†" Flint seems strongly disposed to accept Salisbury's discovery without reserve. He believes that something more than ordinary vegetable decomposition is necessary, since the disease is indige-

* For this statement of the contents of Dr. Salisbury's paper, I am indebted to Flint's *Practice*, 3d ed., and the pamphlet of Ranse, "*Du Rôle des Microzoaires et Microphytes.*"

† Text-book of *Practical Medicine*, vol. ii. p. 621.

nous in certain localities, whereas there are other regions where vegetable decomposition occurs just as abundantly, that are free from malaria. Moreover, the poison is of a kind that is easily borne along by the wind, or arrested by trees and other barriers, or absorbed by bodies of water, which gives probability to the supposition that it consists of spores of some kind. Moreover, malarious fever is more common in the summer season, when, of course, cryptogamic vegetation is most abundant. Assuming, then, the cryptogamic character of miasma, it would seem to be an easy matter to verify or disprove Salisbury's results. As far as I have been able to ascertain, no microscopist of any note has verified them. Niemeyer, in the later, as in the earlier editions, of his text book, declares that no one has ever seen the spores whose existence he hypothecates as the malarial principle. Did the presence of the "*Gemiasma*" cells uniformly and universally attend intermittent fever, it is astonishing that they have escaped the observation of so many experts, the world over—men whose lives are devoted to the investigation of the "infinitely little," and who are even more familiar with the microscopic world than with the world of ordinary vision. This alone should inspire us with grave doubts concerning Salisbury's theory. Offoremost utility, at the present day, is the bold and original investigator; possibly the next position in the order of merit belongs to the conservative sceptic who doubts, and doubts till conviction is forced upon him!

"Truth never can be confirmed enough,
Though doubts did ever sleep."

Salisbury has left a great lacuna in his theory—he has not told us if he has found the palmella in the blood of his ague patients. This is a grave omission, for it is in the blood that the important changes take place. Moreover, granting the presence of the palmella in the urine of those who were the subjects of Salisbury's experiments, those corpuscles may have been only occasional concomitants, and not necessary etiological antecedents of the disease. Salisbury admits that he has found, associated with the palmella, other cryptogams, belonging to genera, *Torula*, *Penicillium*, *Aspergillus*, *Sphærotheca*, in the urine of ague patients; but these he regards as accidental. The palmella may have been equally accidental.

The strongest confirmatory evidence in support of the palmella theory is that afforded by the apparent communication of the disease by emanations from those boxes of earth. There is, however, even here, no absurdity in the supposition that the real miasma may have been a subtle chemical principle, possessing peculiar toxic properties, generated, under extraordinary conditions, from decaying organic matter, and intimately associated with the lowest algæ and fungi. The marsh miasm more resembles in its action a spreading chemical poison, than it does the "infinitely little" organisms, multiplying themselves in the blood, at the expense of the oxygen and pabulum of the tissues. Here is the startling fact that malaria does not reproduce itself in the system of the person affected—that, as Niemeyer expresses it, "there is no soil in the human body favorable to its development or increase." It thus resembles snake poison. The direct effects of malaria on the blood are those of a poison. "In the worst cases, the blood becomes speedily darker in color, and otherwise altered, and accumulates in extraordinary amount in the internal organs, where it then suffers still

further in consequence of its stagnation and want of purification by the ordinary processes of excretion. The fit of ague is the reaction of the vital powers against this cumulative influence of the poison on the blood; if the vital powers are strong, and the dose of the poison not overwhelming, the fit successfully removes the internal congestions, and partially restores the purity of the blood through increased excretion; but some poison being still in the system, similar effects are again produced, after longer or shorter intervals; and so alternate attacks and intermissions appear in succession.”*

Till, then, more convincing experiments shall have been performed, the poison theory of the older pathologists will hold against the living ferment theory of the newer.

Salisbury, who certainly has the merit of being an indefatigable worker, has extended his investigations in other directions, and is so thoroughly possessed of the vegetable parasite hobby, that every communicable disease must be accounted thereby.

It is needless to say that Dr. Salisbury finds cryptogams in everything. In an interesting paper published in the *American Journal of the Medical Sciences* for January, 1868, he describes the *Crypta syphilitica*, and the *Crypta gonorrhœa*, two algoid productions, which he regards as the causes of venereal affections. It suffices to say that his observations have never been confirmed, and that his venereal cryptogams will have to rank along with the notorious Löstoffer corpuscles. Salisbury has published another paper, in which he traces that common exanthem, measles, to the presence and action of another microphyte, the so-called *alga morbilli*. This is of interest, considering that Hallier is equally certain that, commonest of all molds, the *mucor mucedo* is the real *materies morbi*.†

Messrs. Coze and Feltz have given us some most interesting researches, clinical and medical, on infectious diseases, in a work that has not been translated. Animated by an admirable scientific spirit, they have examined and analyzed the blood and secretions of a variety of contagious diseases, and have proved the presence of infusory animalcules and other figured bodies in abundance in those diseases. They have also demonstrated remarkable changes in the amounts of oxygen, carbonic acid and waste extractive matters in the blood, such as we should suppose would be effected by the swarms of microphytes that inhabit diseased organic fluids. It cannot but be that the work of decomposition and disintegration would be accelerated by the presence, multiplication and vital activities of such countless multitudes of living things, and this seems really to be their office in the economy of nature. Though not the principal factors, they are doubtless important adjvants, of disease. It is where vitality is low, or absent, that they flourish. That all prostrating diseases, of whatever nature, should be attended with their presence in the blood and secretions, seems but a truism which every experienced microscopist is every day confirming. That they have any power to initiate disease in healthy organisms is yet unproved. Coze and Feltz, with all their painstaking, have not established, nor do they claim to have established, such nexus between their “mycrozymes” and any infectious diseases.

Prof. Ferdinand Cohn’s little pamphlet, in German, on “Bacteria,”

* Quoted from Williams’s Principles of Medicine, page 84.

† See his work on Parasitic Diseases, translated by H. C. Perkins.

which has been put into my hand by a friend, defends the specificity of the microzymes of all contagious diseases. The bacteria of contagious diseases, he says, are unlike those of ordinary fermentation and putrefaction. Prof. Cohn is not supported in these conclusions by the majority of his fellow-workers,* many of whom are as trustworthy observers as Prof. Cohn. Any differences between the microzymes would seem to be consequent on the altered nature of the fluids which are their habitat. Prof. Cohn feels certain that, in the cattle plague and other contagious diseases, bacteria are the "carriers and initiators" of the maladies. But it is evident that it is quite impossible to introduce bacteria into the blood of a healthy animal without at the same time introducing with them septic or putrescent matters which might initiate disastrous changes in the blood, and become the elements of contagion.

There are a few well-attested facts that of themselves seem to give the death-blow to the vegetable parasite theory of contagious febrile diseases. I will briefly enumerate two. The researches of M. Davaine in connection with that fearful epizootic disease in cattle known as *sang de rate*, which, communicated to the human subject, manifests itself in the form of malignant pustule, have determined that the epizootic is characterized by the presence of multitudes of little organisms, allied to vibriones in the blood of animals affected.† "Whilst this affection is always capable of being reproduced in a previously healthy animal by the inoculation of some of the fresh blood of an animal which has recently died of the disease, the blood of such an animal loses its powers whenever it becomes putrid. . . . Rabbits which had been fed upon the fresh organs of some of the animals that had recently died of the disease, almost invariably became affected, . . . whilst of other animals which had been made to swallow similar quantities of liver, after it had become fetid (and, therefore, swarming with bacteria), only one out of eight died, and even that one, which was found to have suffered from an inflamed lung, did not reveal any trace of organisms in its blood." "These experiments," continues Pasteur, to whose work on the "Beginnings of Life" I am indebted for these facts, "seem only explicable on the assumption that in the cases where the 'blood' was communicated to other animals by inoculation, the disease was communicated, not so much by the direct multiplication of the stock of inoculated organisms, and then spread throughout the body, as because some of the inoculated matter had the power of setting up certain changes of a spreading character which soon sufficed to produce a condition of blood similar to that usually preceding the development of organisms in the disease.‡"

Another fact of importance, as telling against the germ theory, is recorded by Dr. Burdon Sanderson. "In sheep pox (a disease closely allied to, and even more virulently contagious than, smallpox) all the diseased parts are infecting, while no result follows from the inoculation, either of the blood or of any of the secretions; the liquid expressed from the pulmonary nodules has been found by M. Chauveau to be extremely virulent, certainly not less so than the juice obtained from the pustules." Dr. Bastian, in commenting on this remarkable

* See Beale's "Disease Germs," Part I, page 69, for support of this statement.

† Compt. Rend., 1864 and 1865. Quoted by Bastian in his "Beginnings of Life."

‡ Beginnings of Life, vol. ii. p. 363.

fact, observes that "although in other of these diseases the blood does undoubtedly exhibit infective properties, still the ascertained existence of even one exceptional case among maladies so contagious as sheep pox, seems absolutely irreconcilable with the truth of the germ theory, more especially when this theory was started principally to explain the phenomena of such highly contagious diseases."*

My criticism of the Germ Theory of Disease would be too incomplete were I to omit mention of another germ theory, for which we are indebted to that distinguished microscopist and histologist, Dr. Lionel S. Beale. Dr. Beale, while rejecting the vegetable parasite theory, believes in the *contagium vivum*, and gives us a new animated pathology. As this most modern doctrine of contagion is based on recent discoveries of the greatest value, I shall devote several pages to an examination of Dr. Beale's "Disease Germ" theories.

According to Beale, the active principle of all febrile contagious diseases is of *animal* origin. It is not a dead ferment, but living matter—bioplasm. It is bioplasm that has undergone degeneration, and is no longer fit to make tissue or assist function. There is a striking similarity, thus far, between this view and the older view put forth by Claude Bernard in the *Revue des deux Mondes*, and by Lucaze Duthiers in a pamphlet published in 1865. According to this, the animal organism is a colony of zoöids, or separate living units, forming a very close partnership, and working for their own and the common good. There may be riot and insubordination among the zoöids, and then there is disease, and the whole fabric is shaken. The refractory zoöids, like little pirates, attack certain organs, and the stress of the disease falls there. So Beale's little aggregations of degraded bioplasm assume a low, selfish, predatory mode of life; they no longer work for the common good, but to nourish and reproduce themselves. They display, in short, a low kind of reproductive activity; a tendency to produce generation after generation of bioplasts like themselves, but successively degenerating; living and flourishing under conditions where normal bioplasm would perish, and able to interrupt the social harmony of other organisms when introduced there, and generate there a riotous, wasteful progeny, at the expense of the pabulum, bioplasm or formed material which they there find. Dr. Beale claims that he has seen the bioplasts of vaccine lymph, of the cattle plague and of smallpox. In his book on Disease Germs, accurate delineations of these morbid figured bodies are given. So extraordinary is the vitality of these degenerate and diseased bioplasts that they will live weeks and even months after a partial desiccation. So minute is their size, that nothing smaller than a twenty-fifth or a sixteenth will bring them into view. He believes that the essential element of all contagion is of the same nature, but possessing various properties; just as bioplasm of one kind produces nerve, of another, epithelium, &c., so certain mysterious and unknowable conditions determine the production of a diseased bioplasm which produces malarious fever, variola, scarlatina, or typhus exanthemata, &c. Some kinds are more contagious than others, because finer and more subtle, and possessing greater vitality out of the system.

In favor of the peculiar views of Dr. Beale, it is proper to remark that his views in general respecting protoplasm are quite in accord-

* Op. cit., Appendix E, page cxxvi. Op. cit., p. cxxv.

ance with the teachings of the modern German school of biology. All recognize the white corpuscles as the chief blood bioplasts, possessing a wonderful constructive power in health and being the active agents in disease. The peculiar formative power which they possess was inherited at an early period from the bioplasts of the germinal area, and the capability of dividing and subdividing and giving rise to diversified structural and functional developments, is one of the mysteries which is not easily explained by any hypothesis of polarities or the analogy of crystallization.

According to Dr. Beale, the great bulk of our bodies is structure which these little toiling, amœba-like bioplasts have built up, and which has become "formed" or dead material, as little worthy of being called living as the shell of a mollusk or the corallum of an actinozoön. Although the doctrine might be open to the objection that, therefore, the work, functional and voluntary, performed by our organs and muscles is not *vital* at all, nevertheless it can be shown that even this is good modern scientific orthodoxy. It is an easy matter, in what are called "vital phenomena," to eliminate a host of factors which are now known to be physical or physico-chemical. Thus, Matteucci,* in his Lectures on the Physical Phenomena of Living Beings, has shown that the living body manifests the properties of endosmosis and exosmosis, capillarity and inhibition, just as do non-living substances; digestion and respiration are conducted in accordance with known physico-chemical principles; sanguification and the production of animal heat are strictly chemical processes, and even nerve conduction and muscular contraction are now comprehended under physico-chemical laws. The latter tissues manifest their properties, under stimuli, for some time after general somatic death has taken place.

The peculiarly vital phenomena of all organisms are those which are performed by the bioplasts—little structureless bodies, bearing a marked resemblance to the amœba, or Prof. Haeckel's deep-sea animalculæ;† these bioplasts exist scantily in the tissues, but abundantly in the blood and lymph. They initiate all active changes in health and disease. This is the only material capable of growth and multiplication. When supplied with just enough food, and in the normal state of things, this living material undergoes that regular series of changes which result in the construction and repair of tissue. When it lives faster than in health, by being supplied with an excess of pabulum, too rapid growth and multiplication take place; in other words, a morbid bioplasm results. In this way, pus is produced from bioplasts of every description.

The "bioplasm" germ theory is a very ingenious and plausible one, and may, perhaps, be deemed worthy of provisional acceptance, till a better is found; but it is as yet unproved. According to Dr. Beale's admission, all kinds of germinal matter look alike; they are undistinguishable by any characters which the microscope or chemistry can discover, and yet he believes that he has seen the diseased bioplasts of certain infectious diseases! That I have not misrepresented

* See his "Lectures on Living Beings," translated by Pereira. See, also, Maudsley's *Body and Mind*, p. 124 (foot note). Also, Schleiden's application of the same method to plants, in his *Principles of Botany*, Lankester's translation, p. 84.

† See *Popular Science Monthly*, for December, 1873.

Dr. Beale will be seen by reference to the following pages of his work on "Disease Germs," Part II., page 29; also page 162. I will here quote but one passage:—

"It will strike many as very remarkable that the highest magnifying powers hitherto placed at our disposal, serve but to convince us that a minute particle of the bioplasm of the most malignant tumor, or the most rapidly growing pus corpuscle, resembles, in every particular that we can ascertain by observation or experiment, a minute particle of healthy living bioplasm from the blood or from any tissue, and it is proved beyond a doubt . . . that the living particles in vaccine lymph cannot be distinguished from those present in normal lymph and chyle."—Page 162.

This being true, how does Dr. Beale know that the particles of germinal matter which he finds in vaccine lymph, the lymph of cattle plague or cholera, are not *natural* to the fluid in which they are found; simply secondary products, as all inflammatory and febrile affections are characterized by an extraordinary increase of germinal matter in inflamed foci and in the blood; this being consequent on the specific irritation, of whatever kind, that excites the morbid outbreak? To claim that they are the germs of the disease, is begging the question. Our German pathological teachers have taught us to expect in all such cases a "proliferation of embryonic cells." Dr. Beale's supposed contagious bioplasts, then, may be simply *effects*, and not *causes*, of the morbid conditions with which they are found associated. It would be as difficult to isolate these bioplasts, for purposes of experiment, from the septic elements in which they are entangled, as Prof. Cohn's bacteria, which, in some inconceivable way, he supposes he has strained out of diseased fluids.

My object has been to review the prominent phases of the Germ Theory; to criticize popular theories, rather than propound any of my own. The scientific world is inebriated with speculation; the fogs and mists of error blind honest searchers after true knowledge, and the torchlight of induction shines dimly where clear light is needed. In rejecting the Germ Theory as untenable, we have either to confess our ignorance of the causes of all febrile and inflammatory contagious diseases (and it were better to rest content with ignorance than entertain beliefs that are not true), or, guided by analogy, to accept the alternative that the principle of contagion is a subtle chemical ferment, an organic poison, generated in the body of the diseased individual, derived from other diseased individuals, by infection through wounds, as in cow pox and hydrophobia; by infection by contact, as in gonorrhœa and syphilis; by infection by exhalations in the breath or other secretions, as in the case of measles, scarlet fever, whooping cough, and other infectious fevers.* Assuming the chemical theory of contagium, it will be readily comprehended that it might be as difficult to isolate and obtain for purposes of analysis and experimentation the septic or toxic material from the blood and secretions of the animal or person affected, as it would be to detect and identify morphia, strychnia, or any other powerful organic poison in the blood, secretions, or nervous tissues of a person poisoned by either of these drugs. Accepting the chemical theory, we can understand why the poison should be elaborated by preference in certain tissues, from which, as from certain

* See Williams's Principles of Medicine, p. 88.

local foci of contagion, the disease radiates over the system.* We can, moreover, understand why the specific poison "does not seem to be immediately reproduced in the blood of the person affected; rather a set of changes are set up in the blood, which ultimately lead to the evolution of such a poison in some part or parts of the body, so that, as Mr. Simon says, "bowels, skin, kidney, tonsils are the favorite resorts of the several fever poisons, just as they are the surfaces by which naturally the organic waste of the several tissues is eliminated."

Dr. B. W. Richardson, in the *Medical Times and Gazette* for Nov. 5, 1870, advocates a similar view:† "A person suffering from a communicable disease is poisonous precisely as a *cobra di capello* is poisonous—that is to say, he is producing, by secretion, an organic poison, which, if it comes into contact, in the right way, with a healthy person, will reproduce disease."‡ As for the predisposing causes of these febrile and inflammatory communicable diseases, we may enumerate, first, a lowered vitality from heat, fatigue, intemperance, or other debilitating influences; second, certain not well understood conditions of the atmosphere, as a plus or minus of ozone or electricity, or the presence of noxious gases; third, as pointed out by Dr. Carpenter,§ "the presence in the system of an azotized matter, tending to decomposition, whether arising from a rapid disintegration of the materials of the body, as occurs after child-birth, accidental injuries, surgical operations, excessive fatigue, or extreme privation—or caused by impaired action of the depurating organs of respiration and excretion, or directly introduced in the form of unwholesome food in a decaying state."

CONSUMPTION OF HORSE-FLESH IN PARIS.—The horse-butchers, during the first quarter of 1874, have sold 2,111 horses, mules and asses for food. In 1872, the numbers were 1,275, and in 1870, 980. The same progress is making in the Provinces. The Society for the Propagation of the Sale of Horse-flesh has just decreed a medal to M. Carder, for his mode of preserving horse-flesh. Some of this, which was prepared by him in February, 1871, and examined in April, 1874, was found to have presented every analogy to beef preserved by the best methods.—*L'Union Medicale; Medical Times and Gazette*.

* Instances are abundant which show that the natural secretions may become poisonous through peculiar depressing influences, as disturbing emotions. The maternal milk has been known to assume noxious and even deadly properties, owing to the power of fear on the lacteal secretion. The bite of infuriated animals, not rabid, has developed symptoms similar to those of rabies.

See this question discussed fully by Dr. Carpenter, in his late work "On the Principles of Mental Physiology."

The opinion above expressed finds an advocate in Yonatt. In his valuable work "On the Dog," p. 221, he compares the action of the hydrophobia poison to that of infectious fevers. He says of the rabid virus:—"It has never been analyzed, and it would be a difficult matter to analyze it. . . . It must be received into a wound. It must come in contact with some tissue or nervous fibre, and lie dormant there for a considerable but uncertain period. . . . It lies for a time absolutely dormant, . . . but at length the tissue on which it has lain begins to render it somewhat sensible and assimilates to itself certain elements. The cicatrix begins to be painful, and inflammation spreads around. The absorbents are called into more powerful action; they begin to attack the virus itself, and a portion of it is taken up and carried into the circulation, and acquires the property of assimilating other secretions to its own nature, or it is determined to one of the secretions only; it alters the character of that secretion, envenoms it, and gives it the power of propagating the disease."

How much like this, the action of the vaccine virus, variola, and other contagious febrile poisons.

† Bastian's *Beginnings of Life*, vol. ii., Appendix E.

‡ Quoted by Bastian.

§ British and Foreign Medico-Chirurgical Review, January, 1853.

Progress in Medicine.

REPORT ON DISEASES OF THE NERVOUS SYSTEM.

By JAMES J. PUTNAM, M.D.

PATHOLOGY OF THE CORTEX CEREBRI.

SINCE the publication of the highly important experiments upon the localization of centres for muscular movements in the cortex cerebri, made first by Fritsch and Hitzig, of Berlin, afterwards with, in the main, similar results, by Nothnagel, of Berlin, Ferrier, of London, and others (vide this JOURNAL for July 24 and 30, 1873, and April 30, 1874), a number of clinical cases have been reported, in which defined lesions of the cortex produced muscular convulsions, with subsequent partial paralysis, so localized as to strikingly confirm the justice of applying to man, in principle, at least, the results obtained with the brains of animals (*Archiv für Psychiatrie u. Nervenkr.* 1872, Bd. iii. case by Hitzig; *Virchow's Archiv*, Bd. lvi., case by Wernher; *Med. Times and Gaz.*, Nov. 30, 1872, cases by Hughlings Jackson; also *Arch. für Psychiatrie*, Bd. iv., 3 cases by Bernhardt). Among these should be classed a case reported by Bartholow (*Am. Journal of the Med. Sci.*, April, 1874), who, having a patient in whom the dura mater over the upper surface of the brain had been extensively laid bare by an epithelioma of the bone, thrust needles to different depths into the brain, and passed a current of electricity between them, with the effect of causing contraction of the muscles of the neck, with the extensors of the arm and leg, both on the opposite side of the body. An epileptiform attack, limited to the arm, shoulder and neck of the opposite side, occurred, also, after an injury of some severity to a limited region of the cortex.

These experiments and cases, taken in connection with the large number of instances where aphasia has been associated with disease of the convolutions about the fissure of Sylvius,* together with the presumptive evidence furnished by anatomy, would seem unquestionably to teach that the different muscles of the body are represented in certain regions of the cortex cerebri, constituting centres, from the irritation of which the corresponding muscles can be excited to contraction, although, to judge from pathological observation, the arrangement of these cerebral centres may not be, for every individual, precisely the same.

This view has, however, been combatted, especially by Dr. Brown-Séquard,† as has been already stated in this JOURNAL (*loc. cit.*), who brings forward a large number of cases to prove that disease may exist in any part of the brain without causing symptoms at all, or only on the same side of the body with the lesion, and conversely, that disease in almost any part of the brain may produce almost any symptom. From these, and other similar facts, he concludes that the theory which assigns special functions to the different centres in the brain, especially the cortex cerebri, and explains symptoms by the direct irrita-

* For summaries of these cases, vide papers by Lohmeyer, in the *Arch. für Klin. Chirurgie*, and Menzel, in the *Wiener Med. Wochenschr.*, 1874.

† Vide, among other papers, the *Archives of Scientific and Practical Medicine* for January, February and March, 1873.

tion or destruction of those centres, is absolutely untenable, and proposes the theory instead, that the apparent lesion acts *indirectly* upon "distant centres," exerting over them an irritating or a paralyzing (inhibitory) influence, just as peripheral lesions are known sometimes to do. In this way, alone, he believes, are symptoms of disease in the cerebral lobes, the cerebellum, and its peduncles produced, and, in part, those of disease of the base of the brain.

Though never to the same extent, this indirect influence of cerebral lesions has already been recognized by many observers,* but it is also widely questioned whether the principle of the possible assumption by one part of the brain of the functions of another part which may have been destroyed, cannot be so extended as to explain many of the anomalous cases referred to, leaving the theory of the *direct* influence of lesions, for which the positive evidence is so strong, otherwise intact.

This principle is well recognized in general pathology, and, in view of the intimate connections existing between different parts of the ganglionic masses of the brain, particularly the cortex cerebri, its influence in cerebral pathology might fairly be looked for, especially if we admit that the nerve-cells, of the cortex for example, are less distinguished from one another by any physiological peculiarities than by their education, i. e., by the excitations which they habitually receive and transmit.

There appears, moreover, to be the objection to Dr. Brown-Séquard's argument, that, while specifically disproving the existence of "centres," even at the base of the brain, he really presupposes their existence somewhere, as, indeed, the occurrence of definite symptoms, such as we observe clinically, whether produced *directly* or *indirectly*, demands, and it seems to be necessary in either case to admit the validity of the principle of vicarious functions in one form or another.

The positive evidence for the existence of centres, in the modified sense, as regards the cortex cerebri, has already been alluded to.

Dr. Hughlings Jackson, whose observations have several times been mentioned in these Reports (*loc. cit.*), insists on the importance of studying them rather through the careful observation of unilateral convulsions beginning in special muscles, or muscular groups, than by the class of paralyzes, for the reason stated, that from absence of paralysis we cannot confidently infer the presence of corresponding centres in the cortex, while from convulsion we can infer their presence and their excitation.

According to his, and others', view of cerebral physiology, we can already say, in general terms, that the whole muscular system of the body is probably represented several times within the central nervous system, in different masses of gray matter, that of the spinal cord, of the cerebral ganglia (except, perhaps, the optic thalamus), of the cerebellum, and of the cortex cerebri, from any one of which it is capable of being excited, entirely or in part, to functional activity. Among these ganglionic masses, it is the cortex cerebri which is so placed as to receive the greatest number and variety of nervous impressions through the channels of the senses, which it also has the power of storing up for future use; and there also the greatest variety and number of voluntary impulses naturally have their origin, the active vol-

* Vide, for example, Jaccoud, *Path. Interne*, 4th ed., i. p. 286.

untary impulse (i. e. the nervous impression which excites the nerve-centres in which it has its seat so strongly that through them muscular action is called out) being the resultant of all the impulses, or impressions, present at any given moment in the brain.

The exclusive employment, then, of single muscles, or of a number of muscles in new, or comparatively new, combinations for definite purposes, is, according to this view, a function (speaking physiologically) of the cortex cerebri.

Less highly differentiated, or complicated, i. e., more automatic, movements or even complicated ones, if they have become familiar through repetition, may be called out through the influence of the cerebral ganglia, the cerebellum and the spinal cord. The experiments of Hitzig and Ferrier plainly afford striking support to these views.*

Hitzig, and still more Ferrier, found, moreover, that when the irritation of a definite point of the cortex cerebri, with induction currents, was continued for a certain time, epileptiform convulsions of the muscles on the opposite side of the body could be induced, beginning in the muscles corresponding to the point irritated. It was found also, by both Hitzig and Ferrier, that when any motor centre was cut out, the animals were not paralyzed for the more or less automatic movements of walking or running, but that they would allow the corresponding member to be placed in awkward positions without attempting to correct them, indicating an impairment of muscular sense, although general sensation seemed unimpaired.

Applying these views to pathological cases, we can, according to Hughlings Jackson, assume that localized unilateral convulsions, or convulsions beginning as such, even if they spread afterwards to other parts of the body, are due to irritations *centring* at definite points of the cortex cerebri.†

Such convulsions occur consequent on the nutritive changes due to embolic plugging of arteries, to syphilitic and other tumors, or to localized meningitis, if they cause irritation of the cortex cerebri at certain points (vide *Medical Times and Gazette*, 1873 and 1874, papers by Jackson and Broadbent), and Jackson considers it probable that many cases now classed under the head of epilepsy (a name which he thinks should not be used to designate a collection of symptoms, but a condition of mal-nutrition of nervous centres, which renders them liable to periodic outbreaks of excitement, and which may affect many different parts of the brain) are due to lesions there, although these lesions may easily escape notice, causing, as they do, irritation only, not destruction, of the parts involved. Convulsions of this kind may be followed by more or less temporary, incomplete paralysis, or loss of acquired dexterity, of the parts attacked, of which temporary aphasia is a type. (Speech, unless simply ejaculatory, occurs when the excitations, of which the subjective side is thought, excite the motor centres for the organs of articulation, &c., so strongly that muscular contraction results, and in the conception of words *without* their utter-

* The criticism made by Brown-Séquard and others that, in these experiments, it is the irritation, not of the cortex, but of ganglia lying beneath it, which causes the movements, is discussed in this JOURNAL for July 16, 1874.

† Compare Reports on Mental Diseases in this JOURNAL for July 31, 1873. Also, West Riding Asylum Reports, article Epilepsy. Hughlings Jackson believes, on theoretical grounds, that the spreading takes place through the indirect influence of the arterial districts.

ance, the same centres are implicated, as Hughlings Jackson believes, but less strongly excited.)

Such temporary paralysis may, perhaps, be due to exhaustion of the nervous centres, consequent on their over-action.

When the paralysis is more extensive and complete, as in most cases of cerebral hemiplegia from hæmorrhage, the corpus striatum, or motor tract connected with it, is generally the seat of the lesion, and the paralysis is not necessarily preceded by convulsion, as is almost invariably the case when the cortex is affected.

SHOCK AND CEREBRAL CONCUSSION.

Our knowledge of these somewhat obscure affections has received some valuable additions at the hands of the experimental physiologist, within the past few years, as is clearly shown in some excellent papers by Prof. Fischer, of Breslau,* and Brunton, of London.†

The characteristic *symptoms of shock* are stated as:—pallor and coldness of the skin, weakness and irregularity of the pulse, oppressed and sighing character of the respiration, nausea and vomiting, and apathy of mind without entire loss of consciousness, in brief, a cholera-like prostration; its *causes* as: painful impressions on the sensitive nerves (as in large burns), injuries to bones, and, *above all, injuries to the abdominal viscera and the genitals.*

Besides this form there is another, called by Travers “prostration with excitement,” of which we will only say here that, according to Fischer, it is generally secondary to the form described.

Shock has been pathologically defined by Savory as “the paralyzing influence of a sudden and violent injury to nerves on the activity of the heart.” According to Brunton, this probably occurs in many cases at the outset at least, but the important agency, to which especially the continuance of the symptoms is due, is believed to be *reflex paralysis of the vascular system of the whole body, but particularly of the abdominal cavity*, due to the inhibitory influence which the injury exerts upon the vaso-motor centres, which lie mainly in the medulla oblongata.

That such a reflex paralysis is physiologically possible is an acknowledged fact, and the experiments of v. Bezold and Bever, and others, have shown also that the vascular, especially the venous, system of the abdomen, supplied by the splanchnic nerves, may dilate, when those nerves are cut, so much as to contain nearly all the blood of the body, which stagnates there as in a reservoir. It is especially upon the experiments of Goltz, now of Strasburg, however, that these pathological views are based, who found that a number of light, successive blows upon the abdomen of a frog‡ caused a temporary standstill of the heart; and, further, that after it had begun again to beat, it received and sent out but a small quantity of blood, indeed none at all if the frog was held upright, while examination showed that the missing blood had collected, as described, in the veins of the abdomen.

Goltz at first believed that the paralysis affected solely the vessels of the irritated part, the abdomen, but it was found to be universal, and producible, moreover, by a jar of the whole body.

* Volkmann's Sammlung Klinische Vorträge, Nos. 10 and 27.

† Practitioner, October, 1873.

‡ Brown-Séquard reports that he had made similar observations upon other animals still earlier.—REPORTER.

Through this rapid abstraction of blood, and consequent failure of the circulation, it is claimed that the pallor of the skin, rapid fall of temperature of the body and cerebral symptoms are readily explained. When recovery takes place, it is rather gradual, since the veins contract again but slowly, more slowly than the small arteries; and this, as Brunton believes, gives us a suggestion as to the pathology of *fainting* (syncope), of which the symptoms strongly resemble those of shock.

In the treatment of shock, there are two therapeutical indications: to cause the vessels to contract, and to stimulate the heart's action, besides, of course, keeping up the temperature. Stimulants, ammonia held to the nose, excitation of the skin, are all agents recognized experimentally and clinically, as useful for these ends, and Brunton recommends further, on theoretical grounds, the giving of digitalis in large doses, as has, he says, indeed, been done by Wilks* (half a drachm of the tincture every hour for seven doses), with excellent results, in one case where other means had failed.

The pathology of *cerebral concussion* is believed by Fischer, reasoning by exclusion and analogy, and from the results of autopsies, to be analogous to that of shock, except that the reflex paralysis (in an uncomplicated case, which is a rarity) affects the vessels of the brain alone. He points out that dilatation of the vessels so interferes with the circulation that the tissues are no longer properly nourished, and are virtually in a state of anæmia, which accounts for the coma, and, acting on the heart through the vagus nerve (for whose nucleus in the medulla oblongata the absence of well-oxygenized blood is known to constitute an irritant), also for the slow, irregular pulse—the two characteristic symptoms of that state. Shock and concussion are often followed by symptoms which belong, in general, rather to the direct injuries to the central organs or their membranes which so often occur, but there is some reason to believe that the periodic outbreak of nervous symptoms which are often observed in the sequel (such as epilepsy), may sometimes be the indication of a morbid habit which was instituted in the original attack.

At a recent meeting of the Obstetrical Society of Edinburgh, Dr. Cuthbert showed a rare and interesting case of strangulation in utero. The mother of several healthy children miscarried for the second time March 29, 1874. Her last menstruation was on Dec 17, 1873; consequently, the fœtus was about eight and a half months old. It was perfectly healthy and well developed. No reason could be assigned by the patient for the accident. On examining the fœtus, the funis was found coiled twice round the neck, and under the coiling it was tightly tied in a single knot. The part of the funis from the umbilicus to the neck was completely on the stretch, and its whole length from the insertion in the placenta to the umbilicus was about seventeen inches, or two and one half times the length of the fœtus. The part continuous with the fœtal circulation was round, and of a natural size; but the other part, viz., from the neck of the fœtus to the placenta, was small, and cord-like.

There can be no doubt that the death of the fœtus, and, consequently, the miscarriage, was caused by the tying and coiling of the funis round the neck. Probably, it was also hastened, as the fœtus grew larger, by putting the smaller part of the cord on the stretch, which would tend to tighten the knot and coils; at the same time it would also stop the circulation.—*Edinburgh Medical Journal*, June, 1874.

* Medical Times and Gazette, Jan. 16, 1864.

Reports of Medical Societies.

AMERICAN OTOLOGICAL SOCIETY.

THE seventh annual meeting of the Society was opened at the Aquidneck House, Newport, R. I., on Wednesday, July 15, 1874, at 10.45 o'clock, A.M., the Vice President, Dr. C. J. Blake, in the chair. Thirteen members were present, representing New York, Brooklyn, Philadelphia, Boston, Rochester, Detroit, St. Louis and Pittsburg.

The chair appointed as the Executive Committee, Drs. H. D. Noyes, O. D. Pomeroy and John Green.

The Treasurer's report was read and was referred to Dr. Buck as the Auditing Committee, who reported it correct, and it was accepted.

The nomination of Dr. Ezra Dyer, of Pittsburg, was reported by the Executive Committee, and, on ballot, he was elected. The same committee reported the following bulletin of papers, which were read in order, and referred to the Publishing Committee.

1. Report on Otology. Drs. Burnett and Blake.
2. Case of Otitis Media, with Sinus opening into the Pharynx. Dr. A. Mathewson.
3. Aural Polypus having a Cartilaginous and Osseous Base. Dr. O. D. Pomeroy.
4. Ultimate Forms of Granulation Tissue in the Ear. Dr. A. H. Buck.
5. Perforations of the Membrane of Shrapnel. Dr. C. J. Blake.
6. Chronic Purulent Inflammation of the Tympanum, with Perforation of the Membrana Flaccida. Dr. C. H. Burnett.
7. Case of Irritation of the Chorda Tympani; Paralysis of Facial; Poly-poid Growths on the Membrana Tympani. Dr. H. D. Noyes.
8. Case of Chronic Suppurative Inflammation of the Middle Ear, terminating fatally from extension of the Inflammation to the Middle Ear and the Brain; occurring in the practice of Dr. Agnew. Dr. David Webster.
9. Medicated Bougies. Dr. A. H. Buck.
10. Cases illustrating Tenotomy of the Tendon of the Tensor Tympani. Dr. O. D. Pomeroy.
11. The Mechanical Value of Weight in the Ossicula. Dr. C. J. Blake.
12. Some Neuralgias in and about the Ear. Dr. J. Orne Green.
13. A case of Ménière's Disease. Dr. C. H. Burnett.

The thanks of the Society were given to Drs. Burnett and Blake for the very satisfactory manner in which they had performed their duties as the Committee on Otology, and it was voted that one hundred extra copies of their report be furnished these gentlemen.

After the reading of the second paper, at 1.45 o'clock, the Society adjourned till 4 o'clock.

SECOND SESSION.—The Society was called to order at 4.15 o'clock, and the minutes of the first session were read and approved.

The nomination of Dr. C. S. Merrill, of Albany, was received from the committee, and, on ballot, he was elected.

The reading of the papers was then concluded.

Dr. Rider announced the death of Dr. J. W. Lawton, of Syracuse, and gave a short account of his life and last illness.

The Publishing Committee were directed to revise the constitution and by-laws, and submit their report at the next meeting.

The following officers, nominated by the Executive Committee, were elected for the ensuing year:—

President.—D. B. St. J. Roosa, M.D.

Vice President.—Clarence J. Blake, M.D.

Secretary.—J. Orne Green, M.D.

Committee on Otology.—Clarence J. Blake, M.D., A. Mathewson, M.D.

Publishing Committee.—J. Orne Green, M.D., J. S. Prout, M.D., H. G. Newton, M.D.

Bibliographical Notices.

Legal Responsibility in Old Age. By GEO. M. BEARD, M.D. New York, 1874. Pp. 42. 8vo.

THIS pamphlet is a reprint of a paper read last year before the Medico-Legal Society of New York. It is a research into the relation of age to work, and is not a treatise on senile dementia. The author states that he has noted the age at which great men have done the original work on which their fame rests, and has prepared a table as the result of his investigations. The "golden decade" he places between 30 and 40, from which time mental power declines. Seventy per cent. of the work of the world is done, he thinks, before 45. The average age of those embraced in this list is sixty-six. The quantity of work done by the aged is greater, but in quality and originality the advantage is on the side of youth.

The moral faculties are subject, he says to the same law, and decline in old age, from over-exercise of the lower at the expense of the higher nature through life; from diseases of the brain, or of the body affecting the brain, and because of the intellectual decline.

The idea that the mind declines later than the body has been generally accepted because of our natural reverence for the aged; because reputation is not exactly coincident with the work it rests on, but may even be posthumous; and from the false teaching of works of art which represent distinguished men generally in advanced life.

The paper concludes with some remarks on the frequency of crimes in the aged, on their occasional incapacity as testators, and on the best method of modifying the present system of conducting trials where insanity is in question.

There is a certain incoherence between the parts of this paper which suggests the adaptation of an old theme to the purposes of an address. This is no fault in itself, but when the title and the audience are considered, the want of vital connection between the literary, scientific and legal bearings of the subject are more apparent. The setting forth in the form of an essay the not entirely novel fact that the mental powers are most active between the ages of 30 and 45, the period known as the "prime of life," and supporting it by illustrations from history and biography, hardly warrants the writer's claim "*to the scientific discovery of the law of the Relation of Age to Work.*" He, in fact, admits that in his general conclusions he has been anticipated by many illustrious thinkers.

Granting the law, however discovered, the author does not very clearly show its bearing on the legal responsibility of the aged. The disproportionate decline of different faculties, the irregular decay of mind, which produces correspondingly limited responsibility and capacity, belongs to the consideration of senile dementia, which is an exceptional and not a general consideration. It is hardly to be expected that the Law, so slow to discover impaired responsibility in the dementia of old age, will take cognizance of nicer gradations, or provide a descending scale of responsibility for the closing decades of life.

This paper is suggestive, but Dr. Beard need not rest *his* claim for original work on so slight a basis.

T. W. F.

BOOKS AND PAMPHLETS RECEIVED.

On the Torsion of Blood-vessels. By Robert McDonnell, M.D., F.R.S., one of the Surgeons of Dr. Stevens's Hospital, Dublin. Reprinted from Archives of Scientific and Practical Medicine. 1874.

On the Value of High Powers in the Diagnosis of Blood-Stains. By J. G. Richardson, M.D. Extracted from the American Journal of Medical Sciences. Transactions of the Kentucky State Medical Society, 1874, Nineteenth Annual Session.

Census of the City of Providence, May 1, 1874. By Edwin M. Snow, M.D., Superintendent.

Annual Reports of the Trustees, Treasurer, &c., of the New Hampshire Asylum for the Insane to the New Hampshire Legislature, June Session, 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 30, 1874.

THE Third Annual Report of the Board of Health of the city of New York contains a most thorough and interesting history of the equine influenza, which invaded this country during the year 1872-3, originating in Toronto, and spreading rapidly throughout the United States, crossing the Mexican border to Central America, and transferred by means of steam transports to Cuba. The sub-division of this report relating to the origin and mode of progress of the epizootic was entrusted to Dr. A. B. Judson, who has collected and put upon record certain important data, indicating the laws which appeared to govern its progress and mode of conveyance; and to this portion of the report we desire to call the especial attention of our readers. Dr. Judson arranges the conclusions to which, as the result of his investigations, he has been led, in the form of three propositions, which are illustrated by well executed maps. His first proposition is that "*epizootic influenza does not spread by virtue of any of the recognized atmospheric conditions of cold, heat, humidity, season, climate or altitude.*"

The correctness of this proposition is demonstrated by the fact that the disease advanced with equal rapidity in the north, during the cold months of winter, and in Central America during the heat of July; in the dry atmosphere of the inland country, and the moisture of the seaboard; in the high plateaux of Mexico, and the low, swampy districts of Louisiana.

Second. "*Epizootic influenza does not spread solely by virtue of unrecognized atmospheric conditions.*" This proposition is logically proved by tracing the progress of the disease upon maps, upon which are drawn arcs and radii, by reference to which it is shown that the disease appeared at points equally distant from Toronto at totally different dates, whereas it broke out simultaneously in different cities hundreds of miles distant from each other, all lying in the same direction from Toronto. Then, too, the irregularities in the breaking out of the malady at different localities are so numerous and striking that it would prove absolutely impossible to frame or even imagine any atmospheric law with which these abnormal appearances would not conflict, unless we are able to believe in the existence of unrecognized atmospheric conditions, whose phenomena are totally different from the phenomena of the recognized atmospheric conditions. Dr. Judson considers himself, therefore, justified in maintaining that while it is proved that the virus of this malady is *not* capable of being transferred

through the medium of the air for short distances, and over limited areas, on the contrary it is proved that the spread of the disease is not to be ascribed solely or chiefly to unrecognized atmospheric conditions. Furthermore, the immunity of certain localities could not be explained upon any atmospheric hypothesis.

The third proposition is, "*Epizootic influenza spreads by means of its communicability.*" The proof of this proposition is also of a logical character, but is so abundant and forcible, as to be absolutely convincing. This proof is included under three heads, which may be briefly stated as follows:—

a. The epizootic penetrated every place on this continent, which was in communication, by means of horses or mules, with localities in which the disease existed. So far as concerns Cuba, at the time the disease appeared in that island, horses were being transported into Havana from America.

b. The few places that were exempt from the disease were peculiarly situated, and, by reason of their situation, the importation of horses or mules was either impossible or improbable. To cite an example, during the prevalence of the malady, intercourse with Prince Edward Island was interrupted by the ice, with which, during the winter months, it is hemmed in, while in Vancouver's Island a quarantine was instituted against horses and mules. *Both of these islands were exempt.* Again, if we refer to the three or four towns on the continent in which the disease did not appear, such as La Paz, in Lower California, or Minatitlan, Tabasco and Merida, in Mexico, it will invariably be found that these places were all peculiarly situated, either at the extremity of a peninsula, or else in some remote and inaccessible region, where they were practically cut off from direct communication with towns in which the disease prevailed.

c. Additional logical proof of this proposition is derived from the fact that the rate of progress of the disease seemed to depend upon the extent of population of the district, and the amount and facility of commercial intercourse. In the thickly populated sections of the Eastern States, and along the line of the Pacific Railway, its advance was rapid, whereas in the more thinly settled regions of the West its progress was proportionately slow. At one point, the Sierra Nevada Mountains, which, during the winter months, are impassable, acted as an insurmountable barrier to the course of the epizootic, and it was only able to find its way to California by following the circuitous route of the mining districts lying between Carson City and Inyo.

The medical profession are under great obligations to Dr. Judson for the indefatigable zeal manifested by him in investigating the varied phenomena characterizing this epizootic. The theories which he puts forth respecting its mode of transference will be found to conform to

the canons of Bacon's philosophy, and will bear a close comparison with the recorded phenomena. It is by philosophical investigations, of which this forms a felicitous example, that we are slowly acquiring some knowledge of those mysterious poisons by the agency of which the spread of pestilential diseases is effected; and having at length been enabled to recognize the peculiar conditions required by each specific virus to facilitate its development, the next advance in the evolution of medical science consists in the application of these distinctions to practice, by elucidating some general principles, by the knowledge of which some of the predisposing influences of this class of diseases may be removed, or, at least, seriously modified.

HOBSON'S CHOICE.—*The Lancet* of June 20, 1874, refers in the following witty way to the sanitary condition of Cambridge:—

"A ludicrous discussion took place last week in the Town Council at Cambridge. The late Mayor had presented to the Guildhall a portrait of Hobson, the celebrated letter carrier, who arranged the posts between Cambridge and London during the latter part of the reign of Charles II. Old Hobson was an original character; in vain his customers endeavored to make their own selection of beasts to carry them on their journey, the horse whose turn it was to go out was invariably harnessed; this horse or none, the stout old postmaster offered, whence 'Hobson's choice.' Now Hobson was a sanitarian, and had a great idea of keeping the town sweet and clean. For this purpose, he bequeathed certain moneys to provide for a flow of fresh water to run perpetually on both sides of the streets of Cambridge. Drains were not invented in those days, or, doubtless, he would have employed the water for adequately flushing them. The present Mayor has ordered the portrait of this worthy townsman to be removed from the Guildhall. Of course, certain members of the Council are highly indignant, and attack the conduct of the Mayor. This gentleman defends himself on purely æsthetic grounds, and declares the picture, as a work of art, is not worthy the Guildhall. But we do not hold this to be the true motive for the removal. Has not the face of this ancient sanitarian of late assumed a stern, a reproachful gaze, so that the Mayor does not care to have any more private interviews with it? If this be the case, Hobson's portrait will be stowed away in the lumber-room, without giving him a choice in the matter, till Cambridge is once more clean. Meantime, the townspeople will be deprived of the likeness of their most famous citizen."

A CASE of rupture of the vagina with protrusion of the intestine has been the subject of a coroner's inquest in England, lately. Mr. Peacock, who had charge of the case, had used forceps, although it appears that the rupture probably occurred before the use of the instruments. The intestines protruded, and were cut off by Mr. Peacock. Dr. Barnes, who gave evidence in favor of Mr. Peacock, although he allowed that he should not have removed the intestines in this case, nevertheless thought that their removal did not arise from gross ignorance, want of skill or inattention. That he could conceive a case in which their removal might be the only thing that could be done, and might prolong life for a few minutes.

Under these circumstances, the jury, after a short deliberation, returned the following verdict: "That the deceased died from the effect of an escape of intestine consequent upon spontaneous rupture of the vagina during her confinement, adding their opinion that no blame was attachable to Mr. Peacock.

Correspondence.

THE RECUSSITATION OF PERSONS APPARENTLY DROWNED.

MESSRS. EDITORS.—The “Directions for Restoring Persons apparently Drowned,” lately reprinted in the daily papers, must have attracted the attention of others as they did that of your correspondent C. E. B. Had it not been for a disinclination to act the ungracious part of criticizing so philanthropic an association as the Massachusetts Humane Society, I also should have sent my comments to the *Daily Advertiser’s* editorial waste-basket.

It may well be questioned whether any advantage results from attempts at this sort of instruction; but, as the subject has been opened, I venture to offer for dissection the accompanying “Directions,” which I was tempted to print and post at a sea-side village, three years ago, just after a death by drowning had occurred, when the general ignorance of what to do in such an accident had especially impressed itself on my mind.

My idea was to frame a set of Rules which an average intelligence might comprehend; not to be appealed to at the moment of necessity, but which, by being conspicuously posted, in the depot, the store, or the post-office, should, by repeated perusal, penetrate the memory and understanding of the reader.

The “Marshall Hall” and the “Sylvester” methods cannot be explained without diagrams, and are not, even then, understood well enough to be intelligently practised except under the guidance of an expert. They are, I am informed, omitted from the latest “Directions of the British Royal Humane Society.”

Perhaps the Rules which follow would better serve their purpose if all but numbers I., V., VI. and IX. were omitted.

R. M. H.

DIRECTIONS FOR RESTORING PERSONS APPARENTLY DEAD FROM DROWNING.

- I. Lose no time. Carry out these directions on the spot.
- II. Remove the froth and mucus from the mouth and nostrils.
- III. Hold the body, *for a few seconds only*, with the head hanging down, so that the water may run out of the lungs and windpipe.
- IV. Loosen all tight articles of clothing about the neck and chest.
- V. See that the tongue is pulled forward if it falls back into the throat. By taking hold of it with a handkerchief it will not slip.
- VI. If the breathing has ceased, or nearly so, it must be stimulated by pressure of the chest with the hands, in imitation of the natural breathing; forcibly expelling the air from the lungs and allowing it to re-enter and expand them by the elasticity of the ribs. Remember that *this is the most important step of all*.
- To do it readily, lay the person on his back, with a cushion, pillow, or some firm substance, under the shoulders; then press with the flat of the hands *over the lower part of the breast bone and the upper part of the abdomen*, keeping up a regular repetition and relaxation of pressure twenty or thirty times a minute. A pressure of thirty pounds may be applied with safety to a grown person.
- VII. Rub the limbs with the hands, or with dry cloths, constantly, to aid the circulation and keep the body warm.
- VIII. As soon as the person can swallow, give a table-spoonful of spirits in hot water, or some warm tea or coffee.
- IX. Work deliberately. Do not give up too quickly. Success has rewarded the efforts of *hours*.

THE MEDICAL EDUCATION OF WOMEN.

MESSRS. EDITORS,—I have just received, from my friend Mr. Lawson Tait, of Birmingham, England, a paper on the “Medical Education of Women,” from which I extract several paragraphs giving a trustworthy explanation of the scandal that has been promulgated about some of the female medical students in the University of Zürich. This account clears up the

apparent discrepancy between current rumor and the protestations of Prof. Frey and others. The veritable students of medicine seem to be exonerated from all participation in the objectionable actions which evoked the Russian decree.

I trust you will allow me, by publishing this recital, to make *amende honorable* to the fair sex for crediting and maintaining, in a former communication, charges which now prove to be unmerited.

I am, very truly yours,

JAMES R. CHADWICK, M.D.

123 Boylston Street, July 17, 1874.

"Zurich, like all free Swiss and English towns, is liable at any time to be the centre of some body of political refugees and conspirators, and for some months anterior to the invasion of the town by the lady students, a colony of Russians had established themselves there. What their object was I do not know, but the proximity of Rapperschewyl schloss, the only property of the Polish nation, or rather of the Polish exiles, may account for their selection of Zurich as a resting place. Their numbers, at least, grew very rapidly, and after the English and German ladies, and a few Russian women who really were students, had become fairly installed at the University, they were reinforced by a number of young men and women from Russia who enrolled themselves as students of medicine, but who excited the ill-will of both professors and students by rendering it very evident that study was not their intention. So much were the earnest students affected by them that they instituted proceedings to have them, especially the women, removed, but desisted on the appeal of Prof. Meyer to the effect that if the University were to be closed to the women they did not like, it must also be closed to those whom they respected.

"The attention of the Russian ambassador at Berne seems to have been drawn to the Russian Colony at Zurich, and he made some representations to his government, which were brought to a crisis by one of the female pseudo-students being caught on the Russian frontier with some treasonable documents in her possession. The ukase was accordingly issued, and was directed only against the women, because there was no evidence against the men, and no ostensible reason for interfering with them, but also because the authorities at St. Petersburg well knew that where the women went the men would follow, and the result was as was expected, for Zurich was cleared of a lot of people whose presence neither the University authorities, nor the students, nor the people of the town at all approved of. These Russians, it is true, committed no offence that could be laid hold of, but the women were loud in their manner, smoked in the streets, and, to use the quaint words of one of the professors, 'they lived with their compatriots in houses which had too few rooms.' There are still left at Zurich six Russian ladies who are studying medicine earnestly, and against whose conduct and character not a word has been said; but the general effect of the ukase has been very disastrous on all, for female medical students have thereby been branded with an undefined charge of immorality, based on a substratum of truth, and of which it is not easy for them or for any one to disabuse the public mind. Of the women who were driven from Zurich by the ukase, a small number now study at Berne, two or three tried Leipzig, but failed to pass the matriculation examination which is necessary for entrance into that University, and some are in Paris."

Obituary.

AT a recent meeting of the Hampshire District Medical Society, tributes of respect were paid to deceased members: Drs. Alonzo Lewis, of Hatfield, who died of tubercular disease, the result of continued hard work in the profession, and E. M. Johnson, a victim of the Mill River disaster.

Medical Miscellany.

A PENALTY of £20 and costs (amounting to £5. 1s. 6d.) has been recovered through the Halifax County Court from a person named Anderson, a homœopathic chemist in Halifax, for illegally practising as an apothecary.—*The Lancet*.

THE LONDON HOSPITAL SUNDAY FUND.—The latest accounts state that the sum received thus far at the Mansion-house exceeds the entire result of last year's appeal, about £28,000 having been paid in. A much larger sum, however, was expected this, the second, year of the movement.

THE celebrated Mr. Thomas Banting left £20,000 for building a convalescent home at Worthing, to be called the Banting Memorial. When are we to have convalescent homes connected with our Boston Hospitals?

FRECKLES.—It is said that powdered nitre moistened with water, applied to the face night and morning, will soon remove freckles.—*Practitioner and Druggist*, May, 1874.

DR. U. V. WILLIAMS, of Bridgeport, Ky., reports having recently attended a colored girl, aged 11 years 3 months, who gave birth to a male child, well-formed, and weighing eight pounds. Mother and child did well.—*The American Medical Weekly*.

PROF. SCHIFF, of Florence, "has demonstrated the superiority of ether to chloroform, on the ground of safety to human life . . . that ether is unattended by any hurtful result, unless through gross carelessness . . . is so convinced of this as to affirm that every case of death resulting from the application of ether is wholly due to the incompetency of the physician by whom it may have been administered."

THE BRITISH MEDICAL ASSOCIATION will hold its annual meeting at Norwich on August 11th, 12th, 13th and 14th, the president being still Sir Wm. Fergusson, and the president elect Edward Copeland, M.D., Senior Physician to the Norfolk and Norwich Hospital. An address in medicine will be given by J. Russell Reynolds, M.D., Physician to the University College Hospital, and an address in surgery will be given by W. Cadge, Esq., Surgeon to the Norfolk and Norwich Hospital. An address will also be given by James Matthews Duncan, M.D., Lecturer on Midwifery and the Diseases of Women and Children in the School of Medicine, Edinburgh.

CYSTIC TUMOR ATTACHED TO THE KIDNEY.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, a case of the above, simulating ovarian disease, was reported. The kidney was extirpated, and the patient recovered. Mrs. S., 49, mill-worker, widow, noticed, eighteen months ago, a swelling in the lower iliac fossa, which made rapid progress. When admitted to the hospital, it was freely movable, and larger than a man's head. Three fluctuating points, which apparently communicated, were felt. Uterus was high in the pelvis. Ovariectomy was determined on. The peritoneum being opened, the cyst was exposed. It was tapped by a large trocar, but no fluid came. It was found to be of the consistence of porridge; the cyst was opened and two pints of stuff cleared out. Ovaries were found perfectly healthy, and in normal situation. Tumor was a cystic one, involving left kidney, which was removed after adhesions to a portion of bowel and omentum were broken up, and vessels and arteries tied. The patient made a tedious, but complete recovery, during which she passed about forty ounces, daily, of healthy, non-albuminous urine. It was remarked that the diagnosis was evidently an erroneous one. The tumor had grown in a very peculiar way, covering the adherent bowels, which were behind the tumor, instead of, as is usual in such cases, in front of the kidney.—*Edinburgh Medical Journal*.

DR. E. S. GAILLARD, who for many years has edited *The Richmond and Louisville Medical Journal*, has lately issued a weekly journal entitled *The American Medical Weekly*. "It will," the editor says, "be an independent medical journal, devoted not only to the medical but professional interests of American physicians, and to the protection and development of those interests which are justly confided to their charge." We wish the enterprising editor success.

PROF. HUGHES BENNETT, owing to a continuance of ill health, has resigned the chair of the Institutes of Medicine, which he has held now for twenty-six years. Already there are several candidates in the field. Among the names mentioned are Dr. John Cleland, Professor of Anatomy in Queen's College, Galway; Dr. J. B. Pettigrew, Pathologist to the Edinburgh Infirmary; Dr. J. G. McKendrick, former assistant to Dr. Bennett and others.

NOTES AND QUERIES.

"AMERICAN MODESTY."

UNDER the above title, the *London Medical Times and Gazette*, of July 11th, somewhat sarcastically says:—"The following richly modest remarks we extract from the seventh report of St. John's Hospital, Lowell, Massachusetts: 'There is this remarkable fact, that scarcely a patient enters the hospital but what improves day by day, seldom if ever getting any relapse, whereas in private practice [such] patients very frequently get worse by taking cold, by improper diet, by overdosing, or some other neglect or imprudence. This hospital affords a grand opportunity to test the merits of good nursing and the application in sickness of sanitary laws; the effect of these agencies may be seen immediately, and in many cases, seemingly to do the cure, with but little medicine.'"

The Report is treating of a certain class of inhabitants, numerous in every manufacturing place, especially so in Lowell, our great city of spindles. But general as the quoted remark may appear, disavowed of its qualifying clauses, it nevertheless contains a truth too often lost sight of or ignored here and in Great Britain. Too long have drugs been considered *the essential* in the treatment of the sick. We, Americans, have been generations in learning that the polypharmacy introduced from Old England by our forefathers has been, and still continues to be, one of the greatest obstacles to the advancement of medical science, and the just appreciation of the profession by the people. In the name of humanity, Brother Bull, avail yourself of every opportunity to witness disease in its natural course, *cured* without drugs, and refrain from sneering at honest confessions of their secondary importance. Thus may you find, perhaps, that your philosophy, though dreamy, is not all-comprehending.

MASSACHUSETTENSIS.

DIED.—In Lawrence, July 21st, Dr. Edmund Seyffarth.—At Hillsdale, Ill., July 16th, Calvin P. Fiske, M.D., formerly of Fiskdale, Mass., 68 years.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities for the week ending July 18, 1874.

Boston, 132; Worcester, 12; Lowell, 22; Milford, 3; Chelsea, 5; Cambridge, 22; Salem, 8; Lawrence, 14; Springfield, 17; Gloucester, 8; Fitchburg, 3; Newburyport, 3; Somerville, 4; Fall River, 19; Haverhill, 4; Holyoke, 14. Total, 290.

Prevalent Diseases.—Consumption, 49; cholera infantum, 32; pneumonia, 14.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 25th, 157. Males, 85; females, 72. Accident, 4; apoplexy, 1; inflammation of bowels, 2; bronchitis, 2; inflammation of the brain, 1; congestion of the brain, 4; disease of the brain, 4; cancer, 3; cholera infantum, 32; cholera morbus, 1; consumption, 23; convulsions, 3; croup, 1; cyanosis, 1; debility, 2; diarrhoea, 4; dropsy, 1; dropsy of the brain, 2; drowned, 3; dysentery, 1; diphtheria, 1; "fever," 1; scarlet fever, 2; typhoid fever, 7; disease of the heart, 5; intemperance, 1; jaundice, 1; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 4; inflammation of the lungs, 7; laryngitis, 1; marasmus, 1; measles, 1; old age, 4; paralysis, 1; pleurisy, 1; premature birth, 1; peritonitis, 1; pyæmia, 1; puerperal disease, 2; rheumatism, 1; suicide, 1; disease of the stomach, 1; thrush, 1; tetanus, 1; whooping cough, 2.

Under 5 years of age, 79; between 5 and 20 years, 11; between 20 and 40 years, 29; between 40 and 60 years, 19; over 60 years, 19. Born in the United States, 107; Ireland, 36; other places, 14.

THE

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Original Communications.

A CASE OF FIBRO-CYSTIC DISEASE OF THE UTERUS.

By GEORGE HOLMES BINBY, M.D., Boston.

Surgeon to St. Elizabeth's Hospital for Women.

IN August, 1873, I was consulted by Mrs. M. for an enlargement of the abdomen. She was forty-eight years old, a native of Maine. There was no evidence of hereditary disease in her history. Menstruation first appeared at fifteen, and was normal. In her seventeenth year, while at school away from home, the menses appeared vicariously from the Schneiderian membrane. On her return home, the catamenia resumed their usual regularity *per vias naturales*. In her nineteenth year, while residing at the seashore, the menses were again absent several months. There was no vicarious discharge, but her health suffered materially. She was advised to leave the seashore, and did so, with a decided benefit to her health, and a normal return of menstruation. She married at twenty, and gave birth three times with normal labors; the last, twenty-three years before. In the latter part of 1863, she suffered ten weeks from metrorrhagia, which ceased spontaneously. During the year of 1867, her health failed rapidly. On one occasion, while engaged sewing, she felt suddenly faint, and swooned. During this peculiar and unaccountable attack, the jaws were fixed, muscles generally rigid, and there was an entire loss of consciousness, from which she was fully restored in the course of an hour. During the convalescence, her family physician, Dr. Edmund Russell, of Lewiston, Maine, discovered a firm, regular tumor, the size of a hen's egg, at the right and very near the uterus. Ever after this time, she was confined most of the time to the bed and lounge, unable to stand, as she stated, on account of the severe, dragging pain in the vicinity of the liver. From 1867, the date of the discovery of the tumor, until 1870, the growth steadily increased in size. Early in 1870, she suffered again from metrorrhagia of thirty-three days' duration. At that time, the abdomen had attained the size of pregnancy at four and a half months, and the tumor was plainly to be felt at the right of the uterus. It appears, with the exceptions above mentioned, that the catamenia appeared every four weeks, but were always profuse until latterly, when they were scanty. Their last appearance was about two months before I saw her.

Her condition when I first saw her was as follows: On inspection, the patient was of full stature, of fair, ultimate nutrition, dark complexion, *mammæ* atrophied, the abdomen of a peculiar, round, regular form, the size of pregnancy at the seventh month. On palpation, the abdomen measured thirty-three inches in circumference; the tumor was

smooth and firm on all sides, and admitted of but slight motion in any direction. On the left of the median line, immediately above the pubes, there was felt, on deep pressure, a well defined, firm, elongated body, closely connected with the main tumor. Arising from below the pubes, it extended upward to the left at least three inches above the pubes. The abdomen was covered with a thick layer of adipose tissue, evidently free from the surface of the tumor. Percussion elicited dulness in all parts of the abdomen. Anteriorly, clearness in both flanks, also evidences of deep-seated fluctuation, rendered indistinct by the thickness both of the abdominal walls and those of the tumor. On auscultation, the pulsations of the aorta were distinctly audible over the central portion of the mass. Vaginal exploration revealed vagina unusually long, evidently put upon stretch superiorly by what, on exploring farther, proved to be the uterus crowded up behind the pubes, and with great difficulty reached with the index finger. By the sound, which is introduced only after repeated attempts, I found the organ fixed and inclined to the left, its cavity measuring about three inches, and by bimanual palpation, namely, the sound in the cavity, and a hand upon the tumor above the pubes, that the latter was intimately connected with the uterus. With the use of a needle of the aspirator, the instrument passes through a thick layer of fat and muscle, thence through a dense, resistant mass, and, finally, into a cavity. There followed a thin, amber-colored serum, which instantly gelatinized on exposure to the air, and, in its congealed state, resembled calf's-foot jelly. Diagnosis reserved.

December 9, 1873.—The patient informed me of her arrival at East Boston, having travelled two hundred miles. The journey was well borne, and she soon recovered from the fatigue. Since August, the date of my first acquaintance with the patient, the abdomen had increased four inches in circumference. Two weeks later, I removed, with an aspirator, from the right side of the tumor, twelve ounces of fluid, of the same nature, consistence and color as that taken on a former occasion. On standing, a fibrinous clot was deposited, which occupied two-thirds the capacity of the vessel which contained it. The removal of the fluid afforded decided relief, and the secretions were very much increased immediately after. Thinking that a more complete evacuation of the fluid might give still greater relief, and facilitate the examination, I determined to tap again at no distant day.

Soon after this, Drs. Wheeler, of Chelsea, and Chadwick, of Boston, saw the patient with me. Dr. Wheeler expressed no opinion. Dr. Chadwick was disposed to consider it ovarian. Three weeks later, with Dr. Chadwick's assistance, I attempted to evacuate the fluid by means of Potain aspirator. The instrument not being quite in order, but little fluid was removed.

January 13th.—Dr. Gilman Kimball, of Lowell, saw the case in consultation. In passing, he remarked, and called my attention particularly to, the hardness and immobility of the tumor; then proceeded to apply a method of examination suggested to him by Dr. W. L. Atlee, of Philadelphia, as follows: The uterine sound having been introduced and held firmly by the handle, Dr. Kimball pushed or rolled the mass from side to side. The impression imparted to the sound by this manipulation was direct and unmistakable. The instrument was now left to itself in utero and the clothing removed in order to note its

movements. The movements of the sound corresponded with those of the mass in a manner which showed unquestionably the close relation of the tumor with the uterus. Dr. Kimball considered it fibro-cystic disease of the uterus.

Having now fully determined to attempt a complete evacuation of the tumor, January 21st, in the presence of Drs. Wheeler, of Chelsea, Lyman and Chadwick, of Boston, I introduced a large trocar and canula in the median line, at a point two inches below the umbilicus. A continuous stream of bloody serum followed the withdrawal of the trocar, which coagulated on reaching the bottom of the vessel. It was thought at first, that what seemed like pretty severe hæmorrhage was caused by the severing of small vessels in the abdominal wall, and would soon cease spontaneously; I therefore allowed the fluid to flow until three pints had escaped. Its bloody character still persisting, there could be no mistaking the fact that our patient was losing a large amount of pure blood. The canula was therefore removed, and the discharge ceased at once. Our fears were soon proved not to have been groundless, for a moment later a state of complete collapse ensued. After nearly an hour of incessant effort on the part of the gentlemen present, she was finally resuscitated. Dr. Chadwick kindly remained with the patient from 5 till 8, P.M.

January 22d.—Patient slept very little the night before; experienced no pain, only slight tenderness at the point of puncture. On bottling the fluid and allowing it to stand, one-fourth consisted of blood coagula, which settled to the bottom; the remainder of an amber-colored serum, much the same quality as that mentioned before. Notwithstanding a most fickle appetite, in the course of ten days she seemed like herself again, though not quite up to her former condition.

March 10th, there was an effort at menstruation, the first since June previous. The flow continued four days, and was attended with the usual sensations. Having employed all the ordinary means of diagnosis, aided by the advice of others, I gave it as my opinion that her disease was fibro-cystic disease of the uterus, for the relief of which an operation was not to be thought of. I should have remarked that her family physician, Dr. True, of Farmington, Maine, who had watched the case for the past few years, had always been inclined to consider it uterine, and so expressed himself at the first visit. During March and April, I saw the patient less frequently.

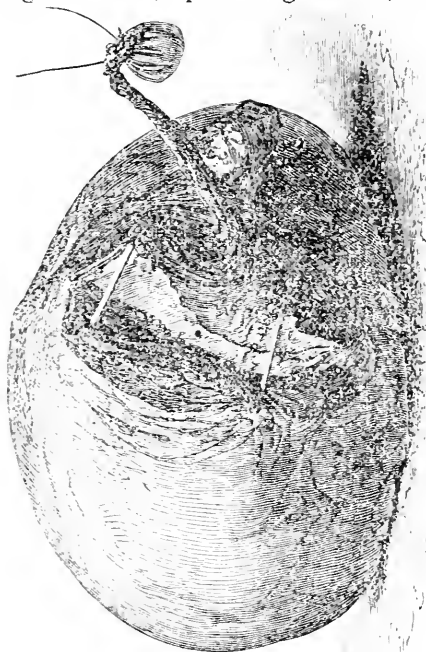
April 20th, I was summoned to see her. For some unaccountable reason, a marked change had taken place in her condition. The face was sallow, and œdematous; also decided œdema of the extremities. Little nourishment was retained, either by the mouth or by enema.

May 1st, the patient had changed beyond recognition; the face was still more œdematous. She lay in a semi-conscious, and at times delirious, state much of the time. On May 4th, death ensued.

Post-mortem, twelve hours after death, Dr. Wheeler being present. Body generally emaciated; incision passed through three inches of adipose tissue. On reaching abdominal cavity, came down upon a smooth, spherical body, the size of a pregnant uterus at the sixth month. The mass is entirely free from adhesions, superiorly, anteriorly and posteriorly; admitted of limited lateral motion, and is firmly attached low down in the pelvis at its inferior extremity. On being raised, the attachments are found to be with the bladder anteriorly,

and the pelvic wall laterally; not by the result of inflammation, but by normal tissue. The right tube and ovary were wanting. The left, round ligament and the central attachment being cut, the mass was removed entire.

The last procedure proved the central attachment to have been the vagina, which, upon being severed, revealed at the inferior extremity of



the tumor, the os and cervix uteri. The sound passed into the uterine cavity, to the left, three and a half inches.

Examination of Specimen by Dr. Fitz.—General form nearly spherical; dimensions, ten inches long, eight wide; weight nine pounds. The outlines of the uterus are distinctly felt, situated in left anterior portion of the mass. On section, mean external length four inches; cavity, three and a half inches, is generally smooth, with a few small, elevated, submucous polypi. General thickness of wall normal. Right horn considerably elongated, funnel shape. Right Fallopian tube ten inches long, stretching over and attached to the surface of the tumor, terminating on the right side, in a closed sac, the size of a

small intestine, dropsical, containing an ounce of dark-blue fluid. No appearance of fimbriæ. Left tube normal, small cyst at fimbriated extremity; left ovary apoplectic, size of a peach. Tumor intimately connected and continuous with the whole posterior surface of the uterus as far as just below the internal os, and had apparently extended outward, upward and between the layers of the right broad ligament. The upper portion of the broad ligament, a sort of sheath without adhesion. The right round ligament flattened out and elongated. To the right of round ligament, a depressed cicatrix, probably resulting from puncture. Tumor covered everywhere by peritonæum, except a small portion of the posterior and lower surfaces. Section through tumor showed its central portion to be a dense, tough, reddish gray tissue, and a greater portion of the surface representing cavities; a mesh-work of friable fibrous tissue filled with clear, amber-colored fluid. In one part of the tumor, a decolorized blood clot. The tumor was enclosed in a dense, apparently fibrous wall, which could be enucleated from its peritoneal investment. The most intimate connection between uterus and tumor was at about the middle third, where the tumor could not be enucleated from the uterus without injury to the uterine tissue. The tissues connecting the two were in the main fibrous, containing, also, involuntary muscular fibres. All the other organs healthy.

As to the cause of death, that the patient never fully rallied from the last tapping was quite evident. She was, however, very comfortable, and talked about returning to her home. The announcement that nothing could be done for her, although, as we have said before, she had never hinted at the least disappointment, must nevertheless have exerted a serious effect upon her, inasmuch as she had been for many years a great tax upon the patience and strength of an only daughter, who was herself an invalid.

A CASE OF PUERPERAL PERITONITIS, WITH
SUDDEN DEATH WHEN APPARENTLY
NEARLY RECOVERED.

By FRANCIS J. CANEDY, M.D., of Shelburne Falls.

WAS called, March 19th, at 2 o'clock, A.M., to attend Mrs. S., a German woman, in labor with her fifth child. On my arrival, I found that the liquor amnii had escaped an hour before; but, on making an examination, found the uterus high up in the pelvis, so high, in fact, that it was with difficulty that I could reach the os, which was dilated only sufficiently to allow the introduction of the end of my index finger. I could not definitely make out the presentation at this time, but decided that it was not the vertex.

The pains were not hard. Two hours later, I found the os fully dilated, and the shoulder of the child presenting. I now introduced my hand into the uterus, accomplished version, and delivered the patient of a living child without much difficulty. I then administered one-half drachm of Squibb's fluid extract of ergot, as is my custom when contractions of the uterus are sluggish, and I have reason to fear post-partum hæmorrhage, which I was anxious to prevent in this case, the woman being in poor health during the latter part of her pregnancy, and at this time quite anæmic. In a few minutes after the administration of the ergot, a firm contraction of the uterus came on, expelling the placenta, and no hæmorrhage followed. Left her at 7½ o'clock comfortable.

March 20, A.M.—Found Mrs. S. apparently doing well. Pulse 80, and regular. Had taken one Dover's powder the previous evening, for the relief of after-pains, after which she had rested well during the night. The infant was well.

March 21, 8 o'clock, A.M.—I found Mrs. S. complaining of severe pain in her head; said she had not rested since midnight, and had been chilly at two or three times, but had had no severe chill. Pulse 100, with an uneasy sensation about the bowels, but no pain. The bowels were not tympanitic, nor was there much tenderness. Could feel the uterus above the pubes, but there was no evidence of inflammation of the organ. The lochia was natural. After a careful examination of the case, I decided that the headache and fever were caused by the coming of the milk, which was beginning to be felt in the breasts.

As the bowels were constipated, I prescribed a bottle of the solution of citrate of magnesia, one-half to be taken immediately, and the remainder in six hours, if the bowels were not previously moved, and

directed cold cloths to the head. In six hours, I was sent for to see her again. The pulse was now 135 per minute. Pain in the bowels very severe, with some tenderness; countenance pinched and anxious; tongue slightly coated. I concluded that the symptoms observed in the morning, and attributed to milk fever, were caused by the forming stage of puerperal peritonitis. I directed an injection to be given at once, which produced a free evacuation of the bowels, and prescribed opium, in two-grain doses, once in three hours, until the pain was relieved. Tincture of aconite root, in two-drop doses, every four hours, with hot hop fomentations to the bowels. Six hours later, and after taking four grains of opium, I found her nearly free from pain, with a pulse 118 per minute, and with a moist skin. I found that cloths had been applied to the bowels so hot as to make quite an extensive burn just below the umbilicus, which was smarting considerably, a method of counter-irritation that I had not counted upon.

March 22d.—Found Mrs. S. quite comfortable. Had slept considerable during the night, and was, at the time of this visit, pretty thoroughly under the influence of opium, having taken ten grains in eighteen hours. The pulse was 100 per minute; bowels somewhat tender, and moderately distended with gas. There was nothing in the breasts for the child this morning, nor was there ever at any subsequent period. I prescribed one grain of opium once in four hours, directed a flax-seed poultice to be applied to the abdomen, and that she be fed on beef-tea and milk.

March 23d.—Mrs. S. still more comfortable. Pulse 92; free from pain; countenance looking very much better; has some appetite. The burn upon the bowels getting somewhat troublesome, I directed it to be dressed with mutton tallow under the flax-seed poultice. No change was made in the treatment.

From this time, she continued slowly to improve for about two weeks, the tenderness entirely leaving the bowels, except in the left iliac region, which remained somewhat sore, causing her more or less pain daily, the pain running down the left leg to the knee, and sometimes to the foot.

The left thigh was retracted, and it caused great pain at the groin to straighten it. The appearance of the leg was natural.

Suspecting a pelvic abscess, I made a careful examination per vaginam during the first week in April, but found no indication of such a condition, and attributing the pain and soreness to inflammation of the peritoneum of this region, applied tincture of iodine, and covered the part with cotton and oiled silk, but with little apparent benefit.

She remained much in this condition during the first two weeks of April, pulse averaging about 90. Appetite poor; bowels loose. During this time, she took iron, quinine, porter, beef-tea, milk, &c.

April 14th, a profuse diarrhoea set in. April 15th, she vomited a large lumbricoid worm, and suffered much with nausea and retching during the day and night. On the morning of April 16th, another worm was vomited.

I now gave her one drachm of the fluid extract of spigelia and senega, followed in six hours with one teaspoonful of castor oil, which brought away, within twenty-four hours, thirty-seven large lumbricoid worms. At this time she was very weak, not able to be raised up in bed without faintness. Pulse 100, small and irregular. After the ex-

pulsion of the worms, the nausea ceased, and the appetite became better, the patient taking a fair quantity of beef-tea and milk daily, which, with ale and tonics, soon improved her strength considerably, though the diarrhœa continued in a mild form for some time.

The trouble in the left iliac region and thigh improved but slowly. For two or three hours during every afternoon she had considerable fever, the pulse rising to near 100, the face becoming flushed, and headache and thirst being complained of. During the remainder of the twenty-four hours, the pulse averaged 85 to 90. She rested quite well at night, taking, every evening, one grain of opium.

The first week in May, the patient becoming somewhat discouraged at her slow progress, Dr. C. M. Duncan, of Shelburne, was called in consultation, who thought she was doing as well as she could expect, prescribed to her patience and good courage, and recommended a continuance of tonics, nutritious diet and counter-irritation.

At this time her pulse was 80, but intermittent. From this time up to the day of her death, which occurred May 22d, her improvement was constant, and, during the last week, had been rapid. The evacuations from the bowels had become natural, her fever had left her, the pain and soreness in her bowels and leg had pretty much subsided, and she could walk about her room quite well. Her pulse, for one week before her death, had been 75 and regular. In the afternoon of May 22d, while lying upon her bed, after feeling unusually well during the day, she called for water, saying she was faint, and expired before her friends could reach her bedside.

The autopsy took place May 23d, P.M., Drs. C. M. Duncan, C. E. Severance and myself being present.

The stomach and bowels were considerably distended with gas, which we concluded was *post mortem*, as it was not observed when I examined the body a short time after death the previous day. There were about four ounces of water in the pericardium. The heart was normal in size and form, as was also its walls and valves. In the right ventricle was a clot, which had the appearance of being pure fibrin, some two and one half inches long, and three fourths of an inch thick at its largest extremity, gradually tapering to a point at the other. This clot was so firm that some force was required to break it down, and of a light, almost white color, except at its larger extremity, which seemed to contain red blood-discs. Pulmonary veins filled with coagulated blood. In the abdominal cavity there were some six ounces of water, but no pus. The uterus appeared normal. The peritoneal covering of the left Fallopian tube and ovary was somewhat congested, and a portion of the fimbriated extremity of the tube was adherent to the walls of the abdomen at one point. The peritoneal covering of a portion of the small intestine on the left side was reddened, showing the marks of recent inflammation. The spleen was large, and adherent to the walls of the abdomen at one point, and also to the stomach above the gastro-splenic omentum. The liver was much congested, but in other respects normal. The kidneys were not examined, as no symptoms of trouble in those organs had ever been observed in the patient. Lungs healthy so far as examined. Brain not examined.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS
AFTER OVARIOTOMY.

By GILMAN KIMBALL, M.D., of Lowell.

(Continued from page 595, vol. xc.)

Miss B., of Greenfield, Mass., 32 years old, unmarried, of rather feeble constitution, discovered, about two years ago, that she was growing large in the abdomen; no distinct tumor, but simply an unusual fullness. There was also swelling of the lower limbs. She took diuretics, and the swelling, both in the abdomen and the limbs, mostly disappeared, and her health seemed quite restored. The improvement, however, was only for a short time; abdominal enlargement returned, and the lower limbs became again swollen as badly as ever; there was also a decided change in her general health—loss of appetite, emaciation, great debility, &c.

Abdominal distention becoming excessive and distressing, she was tapped, and relieved of about thirty pounds of ascitic fluid. It was now discovered that the abdomen was occupied with several well defined cystic tumors, the largest seven or eight inches in diameter, obviously ovarian.

Relief from tapping was of short duration; the dropsical condition soon returned. The question now arose, whether this merely palliative measure should be repeated, or an operation be performed with a view to a radical cure. With a full comprehension of the magnitude and danger of such a procedure, the latter proposition was decided upon.

In pursuance of this decision, I was applied to, and visited the patient the 30th of November, 1868. I found the case not altogether so favorable as I had anticipated, yet not so unpromising as to justify my refusing to give the patient the only chance for her life. The operation was performed without further delay. Drs. Walker, Dean, Os-good and Fiske, of Greenfield, and Stedman, of Brattleboro', were present and assisted.

On making an incision through the parietes, some five or six inches in length, between the umbilicus and pubes, the peritoneal cavity was found largely occupied with ascitic fluid. This was mostly removed before proceeding further in the operation. The tumor, consisting of both cysts and solid matter, was found attached to the parietes in front and on each side by firm adhesions. The omentum, also, was implicated to some extent. In breaking through the adhesions, and in the effort to dislodge the tumor, several cysts were unavoidably ruptured, a circumstance that necessarily complicated and prolonged the operation.

Before cutting away the tumor, the pedicle was tied in two parts with silk ligatures, the stump dropped back, and the ligatures passed out of the pelvis through the vagina.

The hæmorrhage incident to the breaking through the adhesions, and from the torn omentum, was rather profuse. Several vessels opening upon the parietal surface were tied with fine silk and the ligatures cut close to the knot. The omentum bled from too many points to admit of each vessel being tied separately; and in order to meet the

difficulty in the most effectual way, a considerable portion of it was embraced in a single ligature and then cut clean away.

Before closing the incision, the matter that had escaped into the peritoneal cavity from the ruptured cysts was carefully and thoroughly removed by means of sponges and soft cotton cloths. The lips of the wound were brought together with six deep sutures, and so adjusted that nearly all the points of peritoneal surface damaged by adhesions were effectually excluded. Outer dressings the same as usual.

The patient was a good deal exhausted immediately after the operation, but soon rallied, and showed no signs of sinking. During the following night, she slept several hours, complained of no pain or other suffering; on the whole, was more comfortable than could reasonably have been expected.

The subsequent history of the case I quote from the carefully kept record sent me from day to day by the faithful and judicious attending physician, Dr. A. C. Walker.

"The condition of Miss B. from 7½ o'clock, A.M., yesterday, Dec. 1, to 7½, A.M., to-day, Dec. 2, has been as follows:—

"At 7½, A.M., yesterday, pulse 116. 1, P.M.—Pulse 130. 3, P.M.—Pulse 120, after opiate and beef-tea. At 5, P.M., pulse rose to 130, and so continued till 1, A.M., this morning, Dec. 2, when it rose to 140, somewhat fluctuating. After beef-tea and an opiate, it became steadier. 7, A.M.—Pulse 132; abdomen a little distended; complains of some pain. On the whole, the vital powers seem to have failed considerably.

"Dec. 3d.—Record of case ending this morning at 6½ o'clock. Beginning at 9, A.M., yesterday (Dec. 2).—Pulse 130, sharper than usual; face pinched; no tympanites; no pain.

"1, P.M.—Pulse 140; suffers from pain occasioned by flatus; slight distention. Took twenty drops of laudanum with relief. Flatus relieved by rectal tube.

"6, P.M.—Pulse 140. Continues bright. Says she feels quite comfortable. Takes beef-tea and stimulants freely. Dark discharge from vagina noticed for first time. Urine drawn by catheter every eight hours; six or eight ounces each time, of good color.

"3, A.M., Dec. 3d.—Pulse 132, fuller and softer. Sleeps quietly; taken no opiate since 1, P.M., yesterday. Complains of feeling 'tired.' No vaginal discharge.

"6, A.M.—Pulse 134. Just waked up. Says she feels quite like herself. Takes nourishment a little more freely. Bears stimulants well; says they agree with her better than anything else. Vaginal discharge returned. No appreciable fulness of the abdomen. No appearance of accumulation of fluid in the peritoneal cavity. Countenance clear and bright. For the first time during the last twenty-four hours, a decided moisture of the skin.

"12, M.—Pulse 128. More febrile action; face flushed; some 'pain in the bowels'; noises in the street irritate and disturb her. Took a tablespoonful of whiskey and twenty drops of laudanum at 11. Discharge from vagina continues. No abdominal distention. No signs of accumulation of fluid.

"2, P.M.—Pulse 135, soft, not full. More comfortable; less excitable; less pain.

"6, P.M.—Pulse 140, soft and very compressible. Says she 'feels

so tired and nervous.' Took a laudanum enema at 5, and beef-tea, ten to twelve ounces in the last fifteen hours; agrees well with the stomach; no nausea. Urine by catheter, eight ounces. No pain in the bowels, 'except what goes through from the back.' General appearance that of weakness and nervous irritation. Mind perfectly clear, and reacts well under the influence of opium and stimulants. Slight discharge from vagina. Bowels somewhat distended.

"1, A.M., Dec. 4th.—Clammy sweat all over the body; distention of the abdomen; apparently sinking. Relieved deep sutures; the lips separated rapidly. An attempt to introduce a female catheter into the abdomen through the lower end of the incision caused a good deal of exhaustion. It was followed, however, by a slight oozing from the wound and a return of warmth to the extremities.

"3, A.M.—Pulse 145, weak. Skin not quite as clammy. Took whiskey and beef tea; also an enema with twenty-five drops of laudanum. Sleeps well. Mind perfectly clear.

"12, M.—Pulse 145, soft and weak. Quite drowsy; has slept most of the time for the last three hours. Less nervous and irritable. An attempt to get a discharge through the wound failed.

"3, P.M.—Appears a little better. Pulse 135, soft and weak, but distinct. Countenance brighter; says she 'don't feel as though she was going to die.' Mind clear. Voice natural. Just had a free discharge per vaginam. Dressings all removed. Incision all healed, except an inch at the lower end. Very little distention. Only a slight fulness about the umbilicus, which seems like a hard tumor with distinct outlines, sensitive, but not painful.

"8½, P.M.—Same as above as to general condition. Within the past two hours, had two discharges from the bowels, liquid, with considerable flatus; from two to three ounces foetid discharge from vagina.

"6, A.M., Dec. 5th.—Pulse 130, fuller and stronger. Has slept naturally several hours during the night. Taken freely beef-tea and brandy. Vaginal discharge continues. Coughs occasionally, from accumulation of mucus in the fauces and bronchi. The nervous, excitable condition of yesterday has passed away, and she is comparatively comfortable.

"2, P.M., Dec. 6th.—Pulse 135. Cough troublesome, causing some pain in the bowels, and considerable exhaustion. Otherwise, symptoms are favorable.

"Dec. 8th.—Condition of patient is slightly improved within last twenty-four hours. Pulse, at 3, P.M., yesterday, 130; afterwards came down to 124, and so continues. Greatest trouble, mucus in the fauces and bronchi. Distention of abdomen mostly gone. Discharge from vagina more abundant. Says she feels better and stronger. Sleeps quietly and is refreshed. Has vomited once; nausea continued some time after, but was relieved by lime-water and milk.

"Dec. 10th.—Last night, upon removing the dressings from the lower angle of the incision, there welled out from the peritoneal cavity some ten or twelve ounces of sero-purulent fluid, dark colored, very offensive; several ounces more escaped through the night. Following this event, the bowels became more distended than ever, and attended with considerable pain; pulse 134; inclined to sweat. On the whole, not quite as well as twenty-four or forty-eight hours ago.

"Dec. 12th.—Less appearance of sinking than yesterday and day

before ; pulse has steadily fallen from 134 to 110 ; this morning, sleeps well ; disinclined to take nourishment as heretofore ; it is now given per rectum, once in two to four hours ; discharge continues from the abdomen and from the vagina ; very offensive ; ligature separated from omentum ; incision not inclined to heal soundly ; points perforated by sutures, disposed to ulcerate. Urine abundant ; bowels moved naturally twice in the last twenty-four hours.

"Dec. 15th.—No more unfavorable symptoms ; pulse has gradually come down to 100, fuller and stronger ; countenance natural ; sleeps well ; appetite good ; takes beefsteak, eggs, &c. ; discharge from abdominal incision diminished, and less offensive ; vaginal discharge still continues ; bowels moved twice daily ; incision not disposed to heal ; lips still held together by adhesive strips.

"Jan. 5th.—Patient has continued to improve, though slowly ; incision almost closed ; lower angle still open slightly ; appetite good ; strength gaining every day ; pulse 85 to 95, and stronger. On the whole, the case now bids fair to result in ultimate recovery."

In reporting the above case, I have made a transcript of nearly the entire record furnished by the attending physician. I have done so because a less minute account of it might fail to present in a just light the special points of treatment it was designed to illustrate.

Aside from the *generally* unpromising aspect of the case at the outset, the several difficulties that presented themselves during the progress of the operation were such as were calculated to greatly lessen the chances of a favorable result. I allude, of course, to the dropsical effusion, extensive adhesions, and rupture of cysts, with an escape of contents into the peritoneal cavity.

As regards the dropsical condition, it might not of itself have been regarded as a matter of very great importance ; in connection, however, with the other conditions referred to, it became a more serious complication. Following the operation, there was to be, to some extent, at least, a reaccumulation of ascitic fluid ; this fluid was to combine with more or less blood and cystic matter (the thorough removal of which from the peritoneal cavity is always next to impossible) and the result would be, probably, the formation of a poisonous material that would almost inevitably give rise to all the fearful symptoms of septicæmia.

It was with the view of providing against this contingency that the plan of passing out the ligature of the pedicle through the vagina was resorted to ; a plan I was the more inclined to adopt in the present instance from the obvious benefits already derived from it in previous cases. How far, in point of fact, the early discharge of matter brought about by this means may have served to modify or mitigate the severity of those symptoms that began to manifest themselves within the first forty-eight hours after the operation, it is, of course, impossible to determine ; all things considered, however, it is only reasonable to suppose it *may* have been, in fact, the life-saving circumstance in the case.

Early on the third day after the operation, symptoms assumed a threatening character ; by the fourth day, they had become much worse, so much so that speedy dissolution seemed almost inevitable.

At this critical juncture, a dark-colored, foetid fluid began to make its way out of the pelvis through the vagina. The discharge, at first

scanty and inconstant, was followed by no decided evidence of relief, yet it was a noticeable fact that the symptoms, hitherto so threatening, had now *ceased to grow worse*; also, that after a few hours, as the discharge increased and became more constant, the case assumed a more hopeful aspect, and so continued till the tenth day, when the incision reopened at its lower angle, giving exit to a still further discharge, similar in character to that which had been passing off all the while by the vagina. This last discharge was evidently the result of a secondary formation, and its timely occurrence may have been the means of preventing a return of those terrible symptoms which had already well nigh proved fatal.

As was the case upon the first appearance of discharge from the vagina, the relief that followed its escape through the last abdominal opening was not immediate (indeed, for two days, symptoms were even more alarming than ever); on the third day, however, the thirteenth after the operation, the case took on a more favorable aspect; the pulse, strength, appetite, in short, every symptom indicated that probably all danger was passed, and that convalescence was, at last, fully and permanently established.

But while illustrating in this case the obvious advantages of a special plan for relieving the pelvis of secondary and poisonous accumulations in the most direct and effectual way, it is well, also, to take into account the *supporting* treatment pursued during the first ten days succeeding the operation. Medication in any form during this critical period could be of no benefit; the obvious indication was to supply the system liberally with nourishment and stimulants. To this end, animal nutriment, mostly in the form of beef-tea and broths, was given at short intervals, and in such quantity as the stomach would tolerate, and when objected to on account of nausea or loathing, the same form of nourishment, in equal or even larger amount, was administered by the rectum. Milk with lime-water was given in considerable quantities, and evidently with good effect. Brandy and whiskey were resorted to, as the prostrate and sinking tendency seemed to render necessary.

As might have been expected, convalescence in this case was very slow. Indeed, several months had elapsed before improvement had reached a degree equal to what is oftentimes seen in *uncomplicated* cases within a fortnight. At length, however, a satisfactory recovery has been attained. The patient is now a resident of one of our Western States, and it is only a few days since that I was informed that she is in the enjoyment of perfect health.

(To be continued.)

TREATMENT OF CHOREA.—Dr. Ransom Dexter, of Chicago, reports the successful treatment of a severe case of chorea, which had resisted all the usual remedies, by ordering perfect rest and quietude for the patient. She was ordered to have the blinds closed, to be kept in the middle room of the house, to observe the strictest quietude in every particular, even to lying as still as possible upon a lounge. Her attendants spoke but little, and the room was kept in a twilight condition.—*Chicago Journal of Mental and Nervous Diseases*.

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. HAYDEN, M.D.

DISEASES OF THE VERTEBRÆ IN CHILDREN.

DR. RUDOLPH DEMME, instructor in children's diseases, and physician to the Children's Hospital in Berne, gives, in the *Jahrbuch für Kinderheilkunde* N. F. vii. *Jahrgang*, 2 Heft, March 3, 1874, a very interesting article upon "Diseases of the Vertebrae in Children." The material used embraces 138 cases treated in this hospital between July 1862, and the end of December, 1872. Of these, 23 were severe cases of ostitis and periostitis, 10 affecting the cervical vertebrae, 8 the dorsal vertebrae and 5 the lumbar vertebrae. The remaining 115 include, partly, cases of rhachitic disease of the vertebral column, and partly mild cases of ostitis and periostitis (subacute or chronic).

The following are the most important results of the author's observations and researches:—

Diseases of the vertebrae in children can be divided into three classes:

1. Rhachitic, affecting both the bones and the ligaments (a manifestation of general rhachitis); this never is found without the presence at the same time of a similar affection of the ribs and of the extremities, although we find, frequently, rhachitis of the thorax and of the extremities without the vertebrae being affected.

2. Mild cases of ostitis and periostitis, of traumatic origin, mostly healing without consecutive caries and necrosis.

3. Severe cases of ostitis and periostitis, of scrofulous and tuberculous character, with consecutive caries and necrosis, formation of congestion, abscesses, &c.

To be distinctly separated from these actual diseases of the vertebral column are the curvatures of the spine, which in no way depend upon disease of the vertebrae, or of their ligaments, but which have their origin in unequal action of the muscles of the two sides, caused by faulty habits, or by muscular weakness of one side, or in the sinking in of one half of the chest, resulting from the absorption of a pleuritic effusion.

The thoracic portion is the most frequently affected, less frequently the lumbar and cervical portion, and less frequently still the sacral region.

Girls are affected more frequently than boys; on the contrary, however, the severer form of the disease occurs oftener in boys.

The severer affection (kyphosis) is more common between two and eight years of age, the milder form (scoliosis) occurs more frequently between two years of age and puberty.

Rhachitis of the vertebral column is most frequent in the course of the second year, and attacks, generally, the lower third of the dorsal vertebrae and lumbar vertebrae. Permanent curvatures of the spine are left behind only in severe forms of the disease, in which case there is also combined a spiral turning of its axis.

Vertebral ostitis can occur in children of any age, and makes its appearance sometimes in foetal life. The inflammation can run a per-

acute, acute or chronic course. The anatomical changes are essentially the same in all three forms, differing only in degree. Where the disturbances of nutrition in the affected, osseous portions are especially severe, caries and necrosis ensue. Ostitis almost always has periostitis associated with it.

Primary periostitis of the vertebræ is found more frequently in children than in adults. Circumscribed, multiple, periosteal inflammation of the vertebræ occurs sometimes in children as a manifestation of constitutional hereditary syphilis.

In cases of vertebral disease, whether rhachitic or of inflammatory nature (ostitis and periostitis), the ligaments are also affected (especially the intervertebral ligaments).

The following are amongst the most important symptoms, in severe cases of vertebral disease:—

1. Pain. This can consist in increased sensitiveness of the affected part, in violent pain on pressure, on motion, &c., or in paroxysms of pain arising spontaneously without exciting cause. In cases of vertebral periostitis, pain is generally present from the very beginning, and it is also much more severe than in vertebral ostitis; in chronic vertebral ostitis, the pain can often be absent during the entire first stage of the disease. When due to periostitis, the pain is always situated over the seat of the disease; in ostitis, it is sometimes referred to places far remote from the diseased part, to healthy portions of the spine, to the extremities, hip- and shoulder-joints, &c. This peculiarity belongs more to the spontaneous paroxysms, palpation nearly always showing the spot from which the pain has its origin. The spontaneous pain occurs not seldom in periodical paroxysms, as at night, during digestion, &c. These spontaneous pains are sometimes observed where neither the cord nor its membranes have become involved in the disease, and are then probably due to the mechanical pressure of the swollen and congested soft parts upon the posterior roots of the nerves at their point of exit. It is not a constant symptom, and pain upon pressure over the diseased vertebra even can, in exceptional cases, be absent, this symptom depending in large measure upon how much involved the periosteum is.

2. A temporary or permanent unnatural stiff carriage of the vertebral column; sometimes also of the head and pelvis, especially when stooping, bending forwards, &c. This is sometimes the first noticeable symptom in commencing ostitis vertebrarum, there being neither pain on pressure nor any deviation in form, these latter symptoms not appearing until several months afterwards.

3. Angular deformities and curvatures of the spine.

In the severest forms of the disease which have terminated in caries and necrosis, we find also:—

4. Formation of congestion abscesses, and

5. Affections of the spinal cord and its membranes, with the series of symptoms belonging to them.

Naturally, it is in the advanced cases of spondylitis which have gone on to caries with abscess formation and angular curvature, that the latter affections are most frequently observed, manifesting themselves in addition to the above described pains, by paralysis, paresis, contraction of the extremities, &c., and sometimes causing convulsions. In the earlier stages of the disease, especially when ushered

in with acute symptoms, a hyperæmic swelling or œdema of the cord or of its membranes, occasioned by pressure, can cause the described symptoms. By such changes we would explain the occurrence of paralysis and convulsions, where they are but of short duration. Where they remain stationary, and are ushered in with acute or sub-acute febrile symptoms, then it is more probable that the inflammation has directly extended to the spinal cord and its membranes. Next to permanent total paralysis and paresis, contractions of the extremities are a most unfavorable symptom, as they nearly without exception point to immutable destructive processes in the spinal cord itself.

Decided elevations of temperature, distinctly referrible to the disease, were found only in cases of peracute vertebral osteitis and periosteitis, and these were of a continued character, the morning remissions being inconsiderable, and the highest evening exacerbations fluctuated between 39.4° and 40.1° C. In all the cases running a sub-acute or chronic course, evening exacerbations above 38.5° C. were always due to some intercurrent acute affections of other organs, acute catarrhal affections, catarrhal pneumonia, &c. In exceptional cases of acute osteitis and periosteitis of the cervical and thoracic vertebrae, an elevation of temperature of an intermittent character was observed. Large doses of quinine, continued several days in succession, brought the temperature down to 38.0° C. In a series of other cases of acute inflammation, the fever was of remittent form, the evening temperature rising to 39.0° – 39.5° C., and the morning remissions falling to 38° – 37.8° C. Nearly always, the temperature was higher in the afternoon, between 2 and 3, than in the evening.

The diagnosis of vertebral disease is founded upon the above described symptoms, and, in its advanced stage, is not difficult; on the other hand, the earlier stages sometimes escape detection, especially in vertebral osteitis existing in circumscribed osteo-myelitic herds, where the pain and deformity are but slight. The affections of the cervical portion offer, as a rule, the greatest difficulties for diagnosis. In some cases of acute circumscribed vertebral osteitis and periosteitis, the child carries one or both thighs in the way peculiar to acute coxitis, using also, in walking, the gait peculiar to the latter disease; and if a careful examination of the back have not been made, it could easily happen that mistakes in diagnosis could be made which would not be discovered until, in the further progress of the disease, spinal deformities and other consecutive symptoms had made their appearance.

The question whether the inflammatory disease has run its course, or is still in progress, is often a very difficult one. In nearly all severe cases, even after cure has been effected, the first attempts to stand and walk are made with great difficulty, and the little patients sometimes experience squeezing sensations in the abdomen, referred to the place of insertion of the diaphragm, or to that of the recti abdominis muscles. These painful sensations, in cases completely cured, correspond with muscular pains that one is accustomed to feel after unusual muscular exertions, as in riding, gymnastics, &c. They can take place in cases not cured, and are then caused by extension of the inflammation towards the spinal canal, or by pressure of the infiltrated soft parts upon the roots of the nerves at their exit, &c.

The prognosis depends upon the constitution and general condition

of the patient, upon the cause of the disease, upon the acute or chronic character of the same, and upon the circumstance, "what part of the vertebral column is the seat of the disease," and "how soon after it originates it comes under treatment."

The treatment of vertebral diseases of children is based upon the etiological and anatomical relations of the disease, and follows the principle of treatment of diseases of joints generally. Of first and greatest importance, is the most complete rest possible. Such rest can be obtained by no apparatus, so as to admit of the patient's walking, standing or sitting, and throughout the whole duration of inflammatory symptoms the treatment can only be carried out with the patient *in bed*. In cases of relaxation and softening of the vertebral ligaments, due to general rachitic disease, a linen band, tightly enveloping the body and extending from the axilla to the hips, suffices to confine the patient on his back, being fastened to the bed by lateral bands attached to the side of the bed or to the outer slats. When the disease is more advanced, and when the patients are very restless and unmanageable, the author uses a well-fitting wire case, carefully padded. Such cases are made by Heren Wolfermann, Berne. It is better to include the patient's thighs in the apparatus. The slipping of the body upwards is best prevented by means of braces, and the body is secured in this wire case by wide breast-bands and hip-bands. An opening allows the acts of micturition and defæcation without disturbing the patient. The patient, fastened in the case, can be taken out in the open air. The case must be so constructed as to have no pressure on the spinous processes of the vertebræ, it being so arranged that they come to lie in a groove. Where there is a tendency to decubitus, the case can be lined with a specially constructed water-mattress. When there is periostitis of the spinous processes, it is a good plan to put the patient for a few days upon the belly; when restless, being fastened by the linen band to the bed. If necessary, an ice-bladder can be placed over the band upon the affected spot. The neck, axilla, upper portion of the chest, hips and ham must be supported with pads of straw or bran. The application of tincture of iodine and of blisters is of service. In two cases of advanced vertebral ostitis, the author obtained most excellent results from the energetic and extensive use of the actual cautery at a white heat to the neighborhood of the diseased vertebræ. The use of this most painful remedy is very exceptionally necessary, as in the great majority of cases of vertebral ostitis and periostitis, recovery takes place by complete rest, application of ice, &c.

Congestion abscesses, when they do not take dangerous directions or purulent absorption is not threatened, should be left to open spontaneously.

Great care must be taken for good air and nourishment. Owing to the weak digestive powers of these children, there is often great difficulty in sufficiently nourishing them, having often to contend against flatulency, chronic vomiting and diarrhœa. For the latter, small quantities of lime-water and brandy, added to the milk, are often very useful. The body should be daily washed with cold water, and subsequently rubbed with a rough towel. This can be best performed with the patient lying on his side.

One of the most difficult questions in the treatment to decide is:—

when can the patient be allowed greater freedom of movement, to stand, sit up and walk? And, further: do they need a supporting apparatus, or is it, under certain circumstances, best not to use them? Where the case has been one of *ostitis* or *periostitis* of one or more *vertebræ*, already far advanced, a longer time is needed for recovery, and the first attempts to move should not be allowed for at least six months. The time for allowing this is determined, in these cases, by: the entire absence of pain over the diseased *vertebræ* on pressure, the absence of pain extending towards the upper chest, abdomen or extremities, and absence of increase of already existing spinal curvature, after careful attempts at standing made several days in succession; and, finally, the absence of general febrile action after those experimental practices. If, under the above circumstances, nutrition increases steadily and there are no disturbances of the general health, the attempts to stand and walk are continued, gradually increasing in duration. The progression must be a very guarded one, and it is advised from time to time to rest a day.

In those cases where the patient, after these exercises, becomes rapidly and markedly fatigued, or where it is not possible to carefully watch the patient, it will be necessary to support the vertebral column with an apparatus. The lighter this is constructed, the less the breast and abdomen are compressed, the more correctly the points of support for the application of the apparatus are chosen, the better will it answer its purpose and the better tolerated by the patient. The apparatuses of Chas. Fayette Taylor are recommended as the best, both for the earliest stages of the mildest forms of this disease as well as for the stage of convalescence.

For those cases of spinal curvature depending upon relaxation of the vertebral ligaments, one-sided muscular action or faulty positions, in addition to removing the cause, the author recommends wearing the wire case of Bonnet during the night. When this is followed for several months, in a majority of cases there is a sure and lasting cure.

For the treatment of patients affected with *rachitis* of the *vertebræ*, the placing of the patient on his back during the night in a properly fitting case, and for a few hours during the day, generally suffices. The child must be as much as possible in the open air, and the administration of cod-liver oil, during the cold seasons of the year, does most excellent service.

In the article from which this abstract is made, several of the most interesting cases are reported in full, and at the end is a tabular statement of the twenty-three cases of severer vertebral *periostitis* and *ostitis* observed by the author in the Children's Hospital.

(To be concluded.)

Dr. T. C. RENNER writes to the Department of Agriculture that, several years ago, he collected some poke-root (*Phytolacca dicandra*) for medicinal purposes, and spread it at several places about the house to dry. Soon after, he observed that many cockroaches were lying dead, and, upon examination, found that they had been partaking freely of the poke-root. Some of the root was placed near their haunts, and the result was that it rid the premises of those insects. Others have since tested the remedy with satisfactory results.—*The Popular Science Monthly*, July, 1874.

Reports of Medical Societies.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

THE tenth annual meeting of this Society was held at the Aquidneck House, Newport, R. I., on Thursday and Friday, July 16 and 17, 1874, the President, Dr. C. R. Agnew, in the chair. Twenty-six members were present, from the cities of Albany, Baltimore, Boston, Brooklyn, Detroit, New Bedford, New York, Philadelphia, Pittsburg, Rochester, St. Louis and Worcester.

The following bulletin of papers was reported by the committee appointed by the President, and, after discussion, referred to the Publishing Committee.

1. Case of Herpes Zoster, the side of nose involved without affection of the eye. Dr. Wadsworth.

2. Six cases of Zoster. Dr. Jeffries.

3. Two cases of Syphilitic Lesion. Dr. Bull.

4. Case of Sympathetic Irritation following Injury. Dr. Dyer.

5. Sympathetic Ophthalmia. Dr. H. Derby.

6. Acquired Astigmatism. Dr. Noyes.

7. Atropine treatment of Myopia. Dr. H. Derby.

8. Case of Excessive Myopia. Dr. Noyes.

9. Case of Inflammation of the Orbit. Dr. Noyes.

10. Three Cases of Conical Cornea. Dr. Thomson.

11. Mydriasis Treated by Electricity. Dr. Webster.

12. V = 47-16. Dr. Jeffries.

13. Value of Color Tests. Dr. Green.

14. Optic Neuritis. Dr. Norris.

15. Circulation of the Retina. Dr. Bull.

16. Modification of the Ophthalmoscope. Dr. Loring.

17. Some Ophthalmological Notes. Dr. Loring.

18. Canthoplasty. Dr. Althof.

19. Trephining the Cornea. Dr. Agnew.

20. Treatment of Blepharospasm. Dr. Mathewson.

21. New Hook for Enucleation. Dr. Hay.

22. Congenital Lachrymal Fistula. Dr. Agnew.

23. Sarcoma of Choroid. Dr. Wadsworth.

24. Sarcoma; Enucleation. Dr. Stevens.

25. Sarcoma. Dr. Jeffries.

26. Foreign Body. Dr. Jeffries.

27. Three New Instruments. Dr. Murdock.

28. Operations for Entropion and Trichiasis. Dr. Green.

29. One hundred and eighteen Cataract Extractions. Dr. Agnew.

30. Twenty-two Cataract Extractions. Dr. Rider.

31. A New Method of Operating for Strabismus. Dr. J. F. Noyes.

The following officers were elected for the ensuing year:—

President.—Dr. C. R. Agnew.

Vice President.—Dr. G. Hay.

Recording Secretary.—Dr. R. H. Derby.

Corresponding Secretary.—Dr. H. Althof.

Committee on Progress of Ophthalmology.—Dr. O. F. Wadsworth.

Publishing Committee.—Drs. H. D. Noyes, E. G. Loring and R. H. Derby.

THE School of Medicine in Paris was the scene of an anti-clerical demonstration recently. M. Hardy, one of the professors, was denounced by the *Univers* for classing the confessional among the predisposing causes of insanity. The students, by way of protest, saluted M. Hardy on his resuming his course of lectures. He was received with a triple round of applause. The *Univers* stigmatizes them as "irreverent sawbones."—*Lancet*, July 11.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 6, 1874.

Now that the accounts of the late meeting of the American Medical Association, as given in the various medical journals, have been received, together with the comments of the medical press on certain reforms which have lately been adopted by this organization, we are, in a measure, able to judge not only of the character of the meeting as compared with former ones, but also of the prospects which the Association, on its present basis, may hold out in the future for fairly representing the medical profession of this country.

The opening address was delivered by the President of the Association, Dr. Toner, of Washington; his remarks were of an interesting character, showed the true spirit of progress, and reflected credit upon himself and the Association.

There seems to have been little of interest occurring at the general meeting, the chief work having been accomplished by the members of the various sections. This is as it should be, and is in marked contrast with the exciting debates and absurd quarrels of former years. It is to the transactions of the sections, then, that we must turn for evidence as to the true character of the meeting. We regret to say that we find here little worthy to record. Beyond a somewhat "acrimonious" debate on the treatment of fractures in the surgical section and the reading of a few papers in various sections, a very few, whose authors' names render it probable that they were of a creditable standard, there was little done to make this meeting noteworthy or even creditable to the profession.

We are not familiar with the precise laws which regulate the selection of members of the new judicial council, the great feature of the present reform. It is evident, however, that the organizers of this council, or those on whom the duty of electing its members has devolved, have not succeeded in making it a body which is in any sense truly representative of the more distinguished portion of the profession, a character absolutely necessary for it to possess should it be considered desirable to induce a large, and, we believe, a better element in the profession, to take any active part in the affairs of the Association. The new plan of limiting delegates to State associations only, although perhaps an improvement on the old one, cannot alone be expected to effect this much to be desired change.

Two years ago, we gave the outlines of a scheme by which the character of the Association might be redeemed. The present reform cau-

not be considered more than a half-way measure which holds out small hopes for any decided improvement. Moreover, the spirit in which certain criticism on the character of the Association has been received by some of its most influential members, is not encouraging to those who hoped to find existing among its leaders an earnest desire to discover the faults of the old organization and to raise it to a standard high enough to satisfy even the most exacting critic, and make it not only thoroughly creditable to the profession, but also fairly representing all sections of the country.

THE Army bill passed by the last Congress, after long discussion, has disappointed many who hoped that something like justice would be done to the Medical Staff. The profession has very properly taken great interest in this matter, and it is not an agreeable thing to be forced to the conviction that its earnest appeals in behalf of Army surgeons have been despised by our legislators. Instead of providing for any increase of rank, or giving any encouragement to good officers to look forward to promotion, Congress has reduced the corps by cutting off two lieutenant-colonels and ten surgeons. Thus, while provision is made by the bill for the filling of existing vacancies in the grade of assistant surgeons, not only are the inducements taken away that will make the service reasonably attractive and remunerative, and lead *competent* young men to enter it, but tried and experienced officers have been defrauded of the well-deserved promotion that has for years been delusively held before them, till now they are unexpectedly assured of many more years in an inferior rank.

It is difficult to conceive of anything more discouraging than the labor, under such circumstances, of keeping up the service to the high standard that has been raised for it. The Surgeon-General, in his annual reports of the last five years, has declared that serious and increasing injury has been done to the service by the persistent neglect of its manifest requirements, notwithstanding his report in 1872, that "many of the best medical officers, having the advantage of the large experience of the late war, disheartened by the faint prospect of advancement are resigning"; and that after repeated appeals to Congress, he was compelled, in his report of last year, to "urge most earnestly upon its attention the pressing and absolute necessity for such legislation as will secure to our officers and soldiers the efficient and reliable attendance in wounds and sickness which the government should provide."

The indifference that has been manifested by Congress to the claims of the medical officers for like consideration with other staff corps, has only been equalled by its thoughtless disregard of the needs of the officers and soldiers for whom it is its duty to provide.

To give dignity to the position of a medical officer and make it attractive ; to make the commission so valuable and desirable as to command the best medical talent, directly and humanely promotes the welfare of the whole army. The attainment of this end should be made paramount to all other considerations ; but it has been hindered by all recent legislation in the matter, and the present law, which apparently provides for more commissioned officers, will not prove satisfactory. Good men will avoid the service, and the corps will be slowly filled ; while irresponsible and often incompetent contract-surgeons must still be employed.

Would it not be well, in the future discussion of this subject, to make more prominent the claims of the Army upon Congress and the country for at least competent medical attendance ?

This matter should not be allowed to rest here. In the interest of humanity and the efficiency of the public service, renewed and more determined efforts on the part of the profession should be made to influence legislation in the right direction.

Correspondence.

LETTER FROM EDINBURGH.

EDINBURGH, July 16, 1874.

THE quaint old city looks much as it did five years ago, when I first saw it, but it is fully as charming on the second visit as on the first. I have no means of knowing how many changes may have taken place in medical circles, but doubtless one of the most important is the removal hither of Mr. Lister from Glasgow. He has greatly simplified his method, but the underlying principle is the same, and the results, as he claims, better than ever. I, of course, am unable to judge of the latter statement by a single visit, but my belief in the soundness of the principle and in its great advantage for hospital practice remains unshaken. Success by this method is, like liberty, to be secured only by eternal vigilance, and Professor Lister dwells strongly on the care necessary in all the dressings and examinations. The spray-producing apparatus is run about the wards on wheels, and, so well trained are the assistants, its use does not appear inconvenient. Boracic acid is used to some extent, as a disinfectant ; it is less irritating than carbolic acid, and apparently as effectual.

I revisited the museums with great interest and profit. The museum of any school, though not a certain guide, is very suggestive of the kind of anatomical instruction given there, and I hope during my holiday to be able to compare those of several cities with one another. The University Museum contains many beautiful injections of the viscera of different animals by the late Professor Goodsir, and also Dr. Pettigrew's magnificent dissections of the nerves and of the fibres of the heart. Would that he had taken warning by Icarus and kept to the terra-firma of anatomical demonstration. The attention of the visitor is called to the skeleton of Burke, that zealous resurrectionist, who, not content with snatching "subjects," presumed to make them, and whose name now enriches the English vocabulary. One or two rooms near the dissecting-room are arranged for the convenience of the students of anatomy. Around the walls, at a convenient height from the ground, is a row of glass cases, each of which contains a bone, or a finely

dissected, ligamentous preparation. There are skulls, both entire and divided, with the bones painted different colors. Each case is made to revolve freely, but so that it cannot be opened or removed.

The Museum of the Royal College of Surgeons, though hardly as interesting as the other, has much that is worthy of notice. Facing the entrance, is the skeleton of an elephant, and perched astride on its shoulders, in the position he occupied during life, is that of his keeper, who was hanged, I forget whether for murder or theft. The taste for the grotesquely horrible appears to linger in the anatomical mind; even Hyrtl could not resist setting up a skeleton Laocoön, snakes and all. There are here many arterial injections of great merit, perhaps the most interesting of which is one of a leg after ligation of the femoral artery, showing the reëstablishment of the circulation. In the Museum of Science and Arts hangs the skeleton of Dr. Knox's celebrated whale. It is not very perfect, and neither very correctly nor elegantly mounted, but it is very impressive from its great size. T. D. JR.

CHATTANOOGA, TENN., July 24, 1874.

MESSRS. EDITORS,—In your issue of July 16th, in reply to my letter of June 11th, asking your comments on an article from the *Eclectic Journal* on a so-called pathognomonic symptom of smallpox in its earliest stage of eruption, you reply, "We are not aware that this is in any way new." If you allude to the statement contained in the clipping, I agree with you perfectly; but if your comment is intended as an endorsement of the article, I will venture to say that the teaching therein set forth is as false and deceptive as it is trite, and that the shotty feeling, however acceptable it may be to a wavering mind, so far from being the leading diagnostic symptom in the early stage, is only in exceptional cases serviceable at all. Its presence is confirmatory, but its absence cannot be taken as evidence that the eruption is not that of smallpox, notwithstanding Tilbury Fox says:—"These spots are, in the very outset, small papules, red, hard and pointed." I have great deference for the opinions and teachings of Fox, but I have seen cases enough to enable me to speak with confidence in which the eruption, when first discoverable, was as free from the characteristic hard feeling as that of scarlatina. The first case of the kind I observed was that of a boy ten years old. I would have pronounced it smallpox at first sight, but had been accustomed to confirm my diagnosis by touch (a very unnecessary practice), and consequently was much surprised to find the skin so smooth. It proved to be a case of confluent and hæmorrhagic smallpox, terminating in death about the fourth day. The next case was that of a girl about a year and a half old, who had been vaccinated about six days before the onset of the disease, but who had been constantly in the room with her father, who was well broken out before her vaccination, which was making good progress, but of course was too late. She died about the third day of the eruption. Since that time, I have studied this point very closely at every opportunity, and have found the hardness wanting at the outset in a very considerable proportion of cases; and, for aught I know, it may have been wanting in every case at the very beginning, since I had not opportunities of determining. Be that as it may, the hardness very soon appears. Flint says:—"At first it appears in the form of small red spots or specks, sometimes having a purplish or livid color. It is now a maculated eruption. The central part of the *maculae* becomes hard, slightly elevated and pointed. A change has taken place from a maculated to a papular eruption." It will be observed he distinctly states that the *maculae* become hard. Here is a plain contradiction to Fox's statement, but Wood speaks of the eruption at its first appearance as consisting of "bright red specks," and further on says:—"On the third or fourth day, the pocks are distinctly formed, being round and flattened on the top, in the centre of which is often a little depression, giving to the eruption a characteristic umbilicated appearance. They are now hard to the touch." The last sentence unequivocally implies that the "bright red specks" are not hard,

and the fact that the author mentions the hardness only after speaking of the umbilication, shows plainly how little he values the former as a diagnostic sign. Watson does not allude to it at all, nor is it strange, since the great desideratum is to make a diagnosis earlier than the hardness appears, and after it has appeared other signs are amply sufficient without it. In light cases of varioloid, this sign is of unquestionable service when the pimples are few and the constitutional disturbance is slight or wanting; but, in ordinary cases of smallpox, the locality of the first eruption and its visual appearance, together with the rational symptoms, are so unmistakable that any but the merest novice may make a diagnosis with the utmost confidence at the period when a decision is most imperative, so that what the *Eclectic Journal* calls "an unfailing diagnostic symptom" is of no special importance in the generality of cases, and only occasionally useful in mild cases of varioloid and anomalous cases of smallpox.

Very respectfully yours,

J. S. BURNS, M.D.

Medical Miscellany.

ACCORDING to the *Richmond and Louisville Medical Journal*, the Convention of Confederate Surgeons, held on the 21st of May, at Atlanta, was not a success, Georgia being almost the only State represented. Dr. S. P. Moore, the Confederate Surgeon General, was elected President. The next meeting is announced to take place in Richmond, July, 1875.

TWO BOSTONIANS MAKE A SUCCESSFUL ASCENT OF MONT BLANC.—Dr. J. B. Ayer, and Mr. W. O. Mosely (student in medicine, and a veteran traveller), both of this city, are spending their vacation in a pedestrian tour through Switzerland; and, on July 7th, they made a successful ascent of Mont Blanc. Leaving the Grands Mulets at 1 o'clock, A.M., with clear skies, and fortified by strong coffee, the tourists were roped to the guide in front, and porter in the rear, at distances of fifteen feet apart. The guide, lantern in hand, sounded every suspicious place with his stock. In the rarefied atmosphere, they suffered from intense thirst, which snow and ice would not quench; but they found great relief from Tyndall's suggestion of chewing prunes and raisins.

At 3.30, the sun put in an appearance, and a glorious sunrise! The snow, in places, was two and three feet deep. The Dome der Goutè was at length reached, and afterwards the Grand Plateau, when breakfast was taken, at 5 o'clock. The view of the "needles" was grand beyond description. A long and wide crevasse, which could not be crossed, was cautiously approached by each individual on hands and knees, and a look into the unfathomable abyss below, lined with clear blue ice, was indulged for a moment. One of the party felt slight exhilaration, and afterwards nausea, but no giddiness.

Occasionally resting for five minutes, the final stretch was one hour and seven minutes, when the party reached the summit, in fine condition. Approaching the top, the roar of cannon was heard, fired from Chamouny, announcing the result.

The view from the summit is not very distinct, save that of Monte Rosa and the Matterhorn; an elevation of 15,781 feet is too high to distinguish lower objects clearly. Temperature, 50° F. The descent to the Grands Mulets was lively, partly, by sliding, and made in 4 hours, 21 minutes, including a stop of 30 minutes.

A Scotchman made the ascent on the second day; and an Englishman arrived at the Grands Mulets for the same purpose, but was taken seriously ill, and obliged to descend next day.

Whilst the tourists were at dinner, at the Hôtel des Alpes, four round of cannon were fired on the grounds in honor of the event, bouquets presented, and a general ovation. This was the 438th ascension, and the 4th successful one made this year.

"THEY DO THESE THINGS MUCH BETTER IN FRANCE."—Last May, at Châteaudun, three venders of a quack medicine were condemned in the Criminal Court—one to three years imprisonment, two to two years, and all three to pay a fine of five hundred francs each. They were convicted in ten instances, in which the total of their receipts had not reached the sum of seven hundred francs. They were tried for *swindling*.

"This is noble!" said I, clapping my hands together.

INCOMES OF LONDON HOSPITALS.—The most wealthy hospitals are the oldest. Bartholomew's, Guy's and St. Thomas's head the list with an annual income each of £40,000. Then comes the London Hospital with an income of £26,000 and vested funds of £200,000. St. George's and St. Mary's have each £15,000 a year. King's College, University College and the Royal Free have each £12,000 a year; the Charing Cross £10,000 and the Westminster £7,000. Of sixteen general hospitals, the returns of fourteen show, in the aggregate, an annual income of £200,000. The incomes of the "special" hospitals depend mostly on voluntary contributions. It is curious to observe that the diseases which attract the most sympathy are those which cause the most suffering. Foremost stand the hospitals for consumption and diseases of the chest, six of these giving a return, as a whole, of £40,947 as the receipts of 1870. The united incomes of thirty-eight special hospitals are £137,000, making, with the general hospitals, a grand total of £337,000 a year.—*British Medical Journal*.

NOTES AND QUERIES.

MESSRS. EDITORS,—"C. E. S." calls attention to the use of *castanea vesca* in pertussis. A fluid extract, prepared by one of our druggists, has been employed by the writer for several weeks, with satisfactory results. The fluid extract was prepared according to Maisch's formula (vide *American Journal of Pharmacy*, December, 1871). In the *Philadelphia Medical Times*, Dec. 28, 1872, may be found a paper by Dr. Thomas D. Davis, recommending the use of Maisch's fluid extract and giving a tabulated account of the results obtained.

F. W. G.

OBSTETRICAL ANÆSTHESIA.

PROF. DEPAUL is reported to have said, at the Academy of Medicine at Paris, that accidents from the obstetrical administration of chloroform are not unknown, and that he is in possession of cases in which sudden death has been produced by it.

DIED.—In this city, Aug. 1st, Surgeon A. N. McLaren, United States Army.

MORTALITY IN MASSACHUSETTS.—Deaths in fourteen Cities and towns for the week ending July 25, 1874.

Boston, 157; Worcester, 33; Lowell, 20; Milford, 6; Chelsea, 8; Salem, 10; Lawrence, 12; Springfield, 10; Lynn, 12; Fitchburg, 4; Newburyport, 5; Somerville, 10; Haverhill, 1; Holyoke, 11. Total, 299.

Prevalent Diseases.—Cholera infantum, 63; consumption, 47; diarrhœa and dysentery, 13.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 1st, 205. Males, 111; females, 94. Accident, 5; abscess, 1; apoplexy, 2; aneurism, 1; inflammation of the bowels, 3; disease of the bladder, 1; bronchitis, 3; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 5; burned, 1; cancer, 3; cholera infantum, 87; cholera morbus, 5; consumption, 16; convulsions, 3; croup, 1; debility, 2; diarrhœa, 10; dropsy, 1; dropsy of the brain, 2; drowned, 2; dysentery, 1; diphtheria, 1; scarlet fever, 2; typhoid fever, 5; disease of the heart, 1; disease of the kidneys, 2; inflammation of the lungs, 6; marasmus, 13; measles, 2; old age, 2; premature birth, 2; peritonitis, 2; puerperal disease, 1; rheumatism, 1; suicide, 1; scrofula, 1; sunstroke, 1; teething, 1; suppression of urine, 1; whooping cough, 3.

Under 5 years of age, 139; between 5 and 20 years, 12; between 20 and 40 years, 24; between 40 and 60 years, 12; over 60 years, 19. Born in the United States, 168; Ireland, 24; other places, 13.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, AUGUST 13, 1874.

[No. 7.]

Original Communications.

SURGICAL TREATMENT OF EMPYEMA.

By HENRY CLARKE, M.D., of Worcester.

* Read before the Massachusetts Medical Society, June 3, 1874.

MR. PRESIDENT AND GENTLEMEN,—I ask your attention to a brief consideration of the Surgical Treatment of Empyema. The object of my communication is to call your attention to a very successful method of treatment, which has been, for a few years, extensively practised in Germany and, to a certain extent, in this country; but, so far as I can learn, its value is not, as yet, generally recognized. If I succeed by this paper in contributing something toward popularizing the proceedings here advocated, I shall accomplish my sole purpose.

The surgical treatment of pleuritic exudations is of the greatest antiquity, dating back to the School of Hippocrates, and puncture of the chest has been performed from that time to the present. The method employed by Hippocrates was that of opening the chest through one of the intercostal spaces, either by the knife or by actual cautery, keeping the wound open until the fluid had entirely escaped, and until there was no tendency to further effusion. If the opening had a tendency to close, it was prevented by the introduction of a metallic sound.

It is not, gentlemen, a cause for self laudation, to reflect that after a lapse of two thousand years, we come back to the practice of the Father of Medicine; but such is in fact the case, for the operation now advocated is essentially the same, with only slight modifications. And yet these little improvements in the treatment following the operation have rendered it one of the most life-saving of all the operative proceedings in the whole range of surgery. It is but another illustration of the importance of attention to little things which can alone ensure success in any critical case, either surgical or medical, a lesson which cannot be too often impressed upon our minds.

In the seventeenth and eighteenth centuries, the operation of paracentesis thoracis excited a good deal of attention, and the question of admitting or excluding air from the pleural cavity was warmly discussed, some advocating one proceeding, and some another. The success, however, of either method was so small, and the difficulty of making a positive diagnosis so great, that the operation was rarely performed, and was condemned by the best surgeons, except in extreme cases. The great discovery of Laennec, of diagnosing diseases of the chest by physical exploration, put a new phase upon the subject. There was no longer so much difficulty in diagnosis to contend with, and Laennec pointed out the indications for the operation

in pleuritic effusions; but he says, "in empyema, it is seldom successful. I have frequently had recourse to it, but have never had any permanent success." Some years later, the subject was again agitated, and prolonged discussions were held in the Academy of Medicine in Paris, and also in other learned societies. Becker, of Berlin, Schuh and Skoda, of Vienna, wrote monographs and treatises on the treatment of pleuritic effusions, in which they advocated thoracentesis. In England, but little attention was given to the subject. Up to the time of Trousseau's paper upon Empyema, read before the Academy of Medicine in Paris, in 1844, the operation was performed, mainly, as a means of relief when the symptoms were most urgent, and not often as a means of cure. Trousseau's method of operating was by puncture with an ordinary trocar, and then injecting a solution of iodine and iodide of potassium, whether the contained fluid was serous or purulent, and repeating this according to circumstances. In cases where the fluid was serous, he found the operation to be more successful; but with regard to those where it was purulent, he remarks, "even in these cases, the operation renders good service." Trousseau encountered great opposition, but his zeal and eloquence in advocating thoracentesis made a great and lasting impression upon the profession at large, and more especially upon his students, many of whom soon became his disciples. In England, the subject awakened interest, and led to the publication of a monograph, by Hamilton Roe, on Paracentesis of the Chest in Empyema and Inflammatory Hydrothorax. He simply tapped the chest with a trocar, whether the fluid was pus or serum. He took no pains to avoid the admission of air, and considered the result of his experience favorable. In this country, the surgical treatment of pleuritic exudations, as a curative means, received its great impulse from the labors of our own Bowditch. You are all familiar with his mode of operating and his able and zealous advocacy of his mode of tapping the chest without admitting air. But here, again, we had the same operation, both for purulent and non-purulent effusions. Large success has attended his method, both in his own experience and in that of others, where the fluid has been serous; but where it has been purulent, it has not been so successful, and, in my own experience and observation, recovery has been the exception. In some cases, the reaccumulated fluid finds its way into the bronchial tubes, and is there expectorated, and the patient may thus recover. In others, the matter burrows through the passage made by the trocar, and forms an external abscess, which either opens itself, or is opened by the knife. This I believe to be the most favorable result for the patient where he is simply tapped. Some cases of empyema recover after one or more tappings, where neither of the above accidents occur, but this result is not common. There have been, in nearly all periods in the history of medicine, some surgeons who have pursued a bolder method than that of Trousseau, Bowditch and others, and have opened the chest freely by an incision with the bistoury, where the contained fluid was pus.

Goodfellow and De Morgan, in the *Transactions of the Medico-Chirurgical Society*, vol. xlii., report some successful cases, in which they made two openings, one between the sixth and seventh ribs, and the other lower down. They passed a piece of drainage tube of Chassaignac through these two openings, and then united the ends,

forming a permanent opening. Their example found but few followers in England, and a large proportion of the cases of empyema there, as well as in France and in this country, continued to be fatal. Not until the recent simultaneous works of Kussmaul and Bartels, in Germany, was the great improvement in the treatment of empyema established. They divided pleuritic effusions into two classes, the purulent and the non-purulent, and claimed for each an entirely different operation. In serous effusions, they simply punctured with a trocar, and removed the fluid by suction, after the method of Bowditch, but in purulent effusions they made free openings. They showed, by a number of observations, that by the latter method of operating, the purulent effusions are almost as amenable to treatment as the non-purulent. Their example was followed by others with like success.

Thus we see, gentlemen, by this bird's-eye view of the history of thoracentesis, that after two thousand years of experience and of prolonged discussion, concerning the expediency of the operation and the method of operating, we come back substantially, so far as relates to empyema, to the simple practice of Hippocrates; that is, to open freely with the knife, and keep the incision open so long as pus continues to collect. We also illustrate, by our success, the wisdom of one of his precepts, "*Ubi pus, evacua.*"

The question as to the appropriate time of operating in empyema is an important one. Shall we operate as soon as we have formed a positive diagnosis, or shall we wait until we are satisfied that the efforts of nature are evidently insufficient to effect a cure? We know that in a certain proportion of cases, recovery takes place. This may be in two ways; first, by absorption, and secondly, by spontaneous opening into the bronchial tubes, or through the outer integuments of the chest. When slightly purulent, the fluid may be entirely absorbed, and even when the pus is quite thick, the fluid portions of it may become absorbed, leaving the morphological elements in a solid or semi-solid form in the pleural sac. This, however, is of rare occurrence.

The recovery by spontaneous opening into the bronchial tubes is more common, and is estimated by von Traube, of Berlin, to be about in the ratio of one to five. This is the most favorable estimate of recovery in this way that I have seen, and I question if the average is as good as this. In some cases, where the pus is thus evacuated, the patient succumbs to the exhausting process. Others die from suffocation. One such case came under my own observation a few years since. Those who do survive, go through a painful and protracted illness. There are other considerations that bear upon the question, as to the proper time of operating. Is there danger of exciting inflammation by operating early? Is the operation attended by more success when performed early, or when delayed as long as possible? Is there any danger in the operation itself which affords a reason for delay? My own limited experience will not justify a definite answer to these questions, and writers are not agreed upon the subject. The majority, however, favor an early operation, and claim for it greater success. The views of these authors are forcibly expressed by Lichtheim, in his clinical lecture, "*Ueber die operative Behandlung pleuritischer Exsudate.*" He says:—

"To the question, when shall we operate, there can be but one answer; as early as possible. As soon as a positive diagnosis of a

collection of pus in the pleural sac is established, proceed without delay to the operation. Through delay in these cases, only harm can come, for the longer the disease exists, the more unfavorable is the prognosis of a complete recovery. He who waits for the subsidence of the fever, will only lose time, and will often, in the end, be obliged to operate while the fever still remains. The fever is only the result of pus in a closed cavity. The best means of allaying it is to let out the pus. To wait, even for the first weeks to pass, in order not to operate during the inflammatory stage, as Kussmaul advises, seems to me unnecessary." . . . "I have operated," he says, "in two cases in the second week of the disease, while there were marked symptoms of inflammation, and in both cases the fever abated immediately after the operation."

On the other hand, the practice of Kussmaul, Prof. Lebert, of Breslau, and others, is not to operate until the acute inflammatory symptoms have subsided. They remove the pus by means of the aspirator, and only resort to free incisions after it has reaccumulated.

In the cases that I am about to report, I pursued the more conservative course, which, in some cases at least, must be also the wiser one. It seems to me that we lose nothing by the delay, and often gain much in the way of the improved condition of the patient. The removal of the fluid by the aspirator gives immediate relief, and the patient at once improves up to a certain point, which is usually reached at the end of a week or ten days. As soon as the patient has ceased to improve, and it is evident that pus is again accumulating, then is the time to operate by free incision.

It may well be asked if this method of removing pus from the pleural cavity by permanent openings is one without limitations. Is it applicable alike to childhood and to old age, to persons otherwise healthy and also to those with tubercular lungs, granular kidneys, or other organic diseases?

The answer may be an affirmative one with this qualification, that, if the patient is so far reduced that he probably would not survive the operation itself, or the shock resulting from it, it should not be performed. Complete recovery is more probable in young persons than in old, for obvious reasons. In phthisical patients, the operation has not only been found, by abundant experience, to be safe, but to prolong life, and to do, what is often vastly more important to the patient, render the remainder of life more endurable.

The presence of pneumo-thorax is not a contra-indication, but often an imperative reason for resorting to the operation.

The diagnosis of the purulent character of a pleuritic exudation is now easily made. We are no longer obliged to depend entirely upon general or local symptoms, such as oedema of the affected side, redness of the skin, hectic fever, chills and night sweats. As soon as there is even a suspicion of the existence of pus, an exploratory puncture should be made with the fine needle of the aspirator, which can be done without danger, and with but little pain. Then we proceed upon a certainty, and not an uncertainty.

Having determined upon making a free opening, the three points to be considered are: First, where to make it; secondly, how to make it; and, thirdly, the subsequent treatment. Dr. Bowditch recommends a point in the back, as low down as possible. Kussmaul, and German

surgeons generally, a point in front, midway between the axillary and mammary lines, and in the fifth or sixth intercostal space. The objection to the point in the back is that the ribs approximate to each other more closely there than in front, and this, consequently, adds to the difficulty of keeping a free outlet for the pus, and also to that of inserting instruments of sufficient size for washing out the cavity. There is another, still greater, objection to this point, in some cases, which is that it obliges the patient to sit up, either in bed or in a chair, during the operation, and at each use of the syringe in washing out the cavity. Some of the patients that I have operated upon could not, I am confident, have endured the exhaustion which this would have occasioned. Some, indeed, were so weak as to be unable even to raise the head. How much less able would they have been to sit up once or twice, daily, for ten or fifteen minutes. The only advantage of the point in the back is that the opening can be made lower down, with safety, than it can be in front, and the lower the outlet for the pus the easier it is to keep the pleural cavity well cleansed, and to prevent decomposition. It must not, however, be forgotten that it is possible to select a point too low down for subsequent convenience. When the walls of the chest contract and the diaphragm ascends, which takes place in the course of recovery, the opening may be closed, or, at least, the passage of instruments rendered more difficult. The advantages of making the opening in front are, that there is more space here between the ribs than there is behind, and that the patient can recline in bed during the operation itself, and also the subsequent dressing of the wound and washing out of the pleural sac. My advice upon this point of selection is that, for patients greatly reduced in strength, it is much better to make the incision in front, and for those able to sit up in bed, it is better to make it in the back.

The opening by the knife may be made in two ways: first, by thrusting it, at one stroke, through the skin and underlying integuments into the pleural sac, and then cutting, either to the right or left, to the necessary extent. Secondly, by making an incision through the skin, about two inches in length, and then dissecting down to the pleura. After this, a puncture should be made with the knife, just above the upper edge of the lower rib, and an opening made at once, corresponding in size to the one in the skin. In this way, there is no danger of wounding the intercostal artery, which has been one of the bugbears in paracentesis thoracis. Such a large opening would seem at first unnecessary, but experience teaches the contrary. The diseased side of the thorax soon contracts, and the intercostal space becomes smaller in consequence of the approximation of the ribs and the healing of the soft parts at each angle of the wound. The contraction of the opening is the most troublesome difficulty that we have to contend with in the subsequent treatment of almost every case. This has given rise to various contrivances for the purpose of preventing the closure of the passage before the pus-secreting pleura has healed. Time will only allow me to mention some of them. Both single and double canulæ, constructed for the purpose, have been frequently used, but they are apt to cause irritation and pain. Rubber tubing, *tubes de drainage*, or a piece of gum-elastic catheter, have been and still are employed, but they have often proved unsatisfactory. I have found it difficult to keep them in place until quite recently.

My present method of using them will be explained in the report of my cases. Dr. Anstie recommends the practice of Mr. Goodfellow, which consisted, as before mentioned, in making a counter-opening lower down, drawing a piece of drainage tube through the two openings and then uniting the ends. This is done by passing a long, bent probe, armed with silk, through the opening made in the fifth intercostal space to another intercostal space below and behind this, and then cutting down upon the end of the probe. This being done, a piece of drainage tube should be tied to the silk and drawn through both openings. This is said to keep the pleural cavity well drained. This method has been followed by other English surgeons with apparent satisfaction, but I cannot find a sufficient number of cases reported to enable me to judge of its relative merits.

A more recent method still, is that of Dr. W. S. Playfair. He read a paper upon the treatment of empyema in children before the Obstetrical Society of London, which was published last year in vol. xiv. of its Transactions. His mode of treatment is by means of subaqueous continuous drainage. For a full description, see the above article.

There is no one point in the management of any case so important as that of preserving to the end a free outlet for the escape of pus. Nothing has surprised me more than the amount of constitutional disturbance that always results from even a small accumulation of pus in the pleural cavity, after the opening has been made and air admitted. If pus is allowed to remain stagnant, decomposition is sure to take place, and the patient becomes feverish, loses his appetite, and often manifests even alarming symptoms. In one case that I shall report, this change in the condition of things came on very suddenly, almost like an explosion. Whatever we may think of the germ theory in connection with the decomposition of pus, it is certain that the whole system seems suddenly to be poisoned, and the patient lies, it may be, in a state of collapse. The general plan that I have pursued in the management of all my cases has been, substantially, that brought especially into notice by von Kussmaul, of Friburg, and the one now generally adopted throughout Germany. Soon after evacuating the pus, I wash out the cavity with simple warm water, or with a weak solution of carbolic acid. I use a gum-elastic catheter, passed well through the opening, and through this inject the fluid with a Davidson's syringe, or a hard rubber piston ear-syringe. It is better to use quite a flexible catheter, which can be passed deep into the chest, around or behind the lung, without doing any injury. In this way, one can more effectually cleanse the granulating surface of the pleura. Having thus washed out the cavity, I roll a piece of linen into the form of a stopper and press it firmly between the ribs, or I fold a narrow piece of linen into several thicknesses and crowd it in by means of a spatula or large probe. In either way, I first moisten the linen with a solution of carbolic acid. Outside of this, I lay a compress wet in the same solution, and over it a piece of oiled silk, or thin rubber, and then apply the bandage.

The compress is changed several times a day, and I repeat the injections once, twice or three times a day, according to circumstances. Various disinfectants have been tried, but it seems to be generally conceded that carbolic acid is the best. It is better, where the case is obstinate, to change from one to another. I have tried permanganate

of potassa, iodide of potassium and tincture of iodine, and with advantage. In spite, however, of the faithful use of one, or all of them, I have not always been able to prevent the decomposition of pus.

(To be concluded.)

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By GILMAN KIMBALL, M.D., of Lowell.

(Continued from page 136.)

CASE VII.—Mrs. B., of Walpole, Mass., a healthy woman 32 years of age, married seven years, no children, observed, during the past year, that she was growing unusually large. For a time, she believed herself pregnant. Her regular menstruation, however, led her to have some doubt in this respect. She called a physician, and he coincided in the idea of pregnancy. He visited her from time to time, never doubting his first impressions.

In due time, she fancied herself taken with regular labor pains, and sent for her physician. He came, and staid with his patient through one entire night and part of the next day. Seeing matters making no very satisfactory progress, he left her, with the understanding that he should be called again upon a return of regular pains. A week after, pains returning, he was sent for a second time. Another night was passed with no better results. In the morning, being obliged to leave on account of important business in a neighboring town, the physician advised sending for some else to take his place. Dr. Fogg, of South Dedham, was called. He discovered no pregnancy, but a large ovarian tumor instead.

I was sent for the following day, and made my first visit to the patient the 3d of March, 1869. I found, as Dr. Fogg had already stated, a large multilocular ovarian tumor which, judging from various symptoms the patient readily called to mind, had been growing, probably, more than a year.

It was now causing great discomfort, chiefly from its pressure upward, and interference with the free action of the lungs; also from constant irritability of the stomach, so that food, however small the quantity, gave distress till rejected. Emaciation and various other symptoms showed a good deal of constitutional suffering.

The case was considered a proper one for an operation, but not till the system had been put in a better condition to endure it. With this view, and to relieve the present distress, I tapped one of the cysts and drew away eight pounds of thick albuminous matter, at the same time prescribing the muriated tincture of iron, fifteen drops twice a day. A note received from Dr. Fogg a few days after, informed me that the patient was greatly improved—appetite good, irritability of stomach wholly gone, and in every respect much changed for the better.

The evacuated cyst re-filled directly, but the general improvement continued.

In order to take advantage of the favorable change before the return of former troubles, it was decided that there should be no unnecessary delay as to an operation.

Proper preparations were made in pursuance of this decision, and I

made my second visit on the 22d of March. Ovariectomy was performed the same day, Dr. Fogg assisting.

The cyst that first presented itself, upon making an opening through the parietes, was very thin, and readily gave way upon being punctured with a trocar; consequently there was an escape of cystic fluid into the peritoneal cavity. The remaining cysts—five in all—were brought forward one after another and evacuated in turn. There were slight adhesions to the parietes in front, also to the omentum. Several shreds of torn peritoneum were cut away after being tied with fine silk ligatures, which were afterwards cut short. The omentum bled at too many points to admit of separate ligatures; it was therefore tied in bulk and cut clean away. The pedicle was small, and of moderate length, tied with a single ligature, and the stump dropped back and the ligatures passed out of the pelvis by the recto-uterine cul-de-sac through a canula.

The stump of the severed omentum was drawn forward and secured between the lips of the incision near its upper angle.

Incision closed with four deep quilled sutures, the everted lips of the incision making a seam four inches in depth and six inches in length. Superficial sutures and outer dressings as usual.

Slight reaction followed the operation. Next morning, symptoms generally favorable; a quiet sleep of several hours during the night; pulse 90; no pain, no nausea; cheerful countenance, and quite hopeful.

On the fourth day, the deep quilled sutures were removed; meanwhile the symptoms were uninterruptedly favorable.

On the sixth day, symptoms of serious trouble: pain in the abdomen, accompanied with distention, nausea and vomiting, quickened pulse, &c.

The nurse in attendance, a woman of rare sagacity in comprehending the special significance of unfavorable symptoms, and equally prompt and judicious in her manner of dealing with them, conceived the idea that probably the cause of the trouble was an accumulation of matter somewhere in the peritoneal cavity, and that relief was to be had only by getting it away as soon as possible. To this end, she passed a female catheter through the incision, at its lower angle, several inches downward in the direction of the left iliac fossa, and drew away eight or ten ounces of thin, foetid matter. The result of this procedure was immediate relief; all threatening symptoms subsided in the course of a few hours, and from that time onward nothing occurred to interfere with a rapid and complete recovery.

It should be stated, in reference to this case, that for two days following the operation there passed off through the canula a considerable amount of bloody serum. It ceased, however, on the third day, and never returned in any degree afterwards.

A case, similar to the above, occurred some seven years since in New Bedford. Symptoms almost exactly like those already described declared themselves on the sixth day after operation. The nurse in attendance, rightly conjecturing the cause of the trouble, passed a female catheter through the opening occupied by the out-hanging ligatures of the pedicle, and gave exit to several ounces of foetid matter. Immediate relief followed, all threatening symptoms abated at once, and the patient made a speedy recovery.

In this case, the pedicle was secured by a clamp, and no arrangement was provided for effecting drainage by canula or other means.

In both the above cases, the symptoms following the operation were apparently the same, and results equally satisfactory. Whether the drainage effected by the canula in the first-named case actually contributed in any degree to the favorable result, is of course a matter of mere conjecture. Seeing, however, that the secondary accumulation and retention of fluids in the peritoneal cavity is understood generally to be by far the most common cause of trouble following ovariectomy, it is certainly fair to presume that, in the case in question, the drainage effected by the canula, though very likely incomplete, may have been of essential advantage in securing a successful result. At any rate, the plan of drainage, as above described, can never be objected to on the score of its being attended with difficulty or risk. Moreover, it never occasions any irritation or discomfort of any kind to the patient.

In many cases of the simplest character, for example, its adoption may be of no special benefit; in others, however, especially where secondary accumulations are almost certain to occur, its advantages would seem to be too obvious to admit of any question.

It will be observed that the symptoms occurring in these two cases were strikingly characteristic of septicæmia; but, fortunately, the cause of mischief was confined within a comparatively small space; it was also so located that by the use of proper means its removal was readily effected. More frequently, however, I have noticed that these symptoms make their appearance more insidiously, and give warning of their appearance at an earlier period after operation. In such instances, it may be calculated that inflammation has invaded the peritoneum to an indefinite extent, and that the poisonous product resulting therefrom has no distinct limits, but is so diffused that its removal can rarely be effected to such a degree as to enable the system to withstand its poisonous effect. Merely making an opening through the incision at any one point, under such circumstances, will avail little or nothing in dislodging the fluid confined within the peritoneal cavity, and the only possible means now remaining for saving the patient from fatal septicæmia consists in the washing-out process first suggested, and successfully practised by Dr. Peaslee, of New York. In three instances, I have seen satisfactory results from this practice. More frequently, however, it has failed entirely.

(To be continued.)

PHANTOM TUMORS OF THE ABDOMEN.—There is often some little difficulty in diagnosing phantom tumors when they occur in the abdominal muscles. They are sometimes large, hard, and nearly fixed in place, size and form; and they may be deceptively complicated with disorderly states of the intestines, or the aorta, or other abdominal or pelvic organs. But in any case, however difficult the diagnosis, the use of ether or chloroform will decide the matter at once. With complete insensibility, all signs of tumor vanish.—Sir J. Paget, *Lancet*, Dec. 13, 1873.

THE number of medical students in the Vienna School was this year 963, of whom 379 were Hungarians. Breslau had 170 medical students, and Berlin 299.

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. HAYDEN, M.D.

[Concluded from page 141.]

NEW EXPERIENCES WITH SUBSTITUTES FOR BREAST MILK.

HENNIG (*Jahrb. f. Kinderheilkunde*, vii. 1; *Allg. Med. Central Zeitung*, Jan. 31, 1874).

The author explains the different ways in which cow's milk becomes changed so as to affect the child injuriously. In the institution over which he has charge, he has never been compelled to resort to any other substitute, the milk being supplied from a model-farm in the neighborhood of Leipzig. He attributes this entirely to the kind of food the cow receives, from which the milk for the infants is taken; this being, exclusively, hay, bran, chopped straw, and a little bruised grain. The milk of this cow showed, always, an alkaline reaction. A milk showing an amphoteric reaction comes from cows that are fed with substances not calculated to produce good milk. Such substances are: Rape-cakes, which contain an ethereal oil, and, in case it has become rancid, a fatty acid that passes into the milk. Beer-grounds are often given in large quantities as fodder; this does not give up alcohol to the milk, but diminishes the metamorphosis of tissue of the animal, and often makes it sick. Potatoes are not good for fodder, often causing diarrhoea, and when given in large quantities, moreover, in late spring, may cause solanin to be present in the milk. The author saw obstinate intertrigo and impetigo very frequently in children that received their nourishment from cows fed on the latter substance. Turnips are likewise improper food for cows. The principal food should consist of a soft, sweet, dry hay; also straw, rich in earthy matters and silicic acid, especially millet and clover-straw; in the winter, in addition, bean-groats.

The milk should be given to new-borns for the first eight days in the form of sweet whey, or in a dilution of one part milk and three parts water, with the addition of milk sugar, and when the bowels are constipated, with a little bicarbonate of soda. From the eighth day, a mixture of one part milk and two parts water should be given. After six or eight weeks, the milk should be mixed with equal parts of water, and the milk sugar omitted. When near the period of teething, the water should be but one-third of the mixture, and gradually diminished until we have the milk pure. The author has never seen any harm from giving breast-milk and cow's milk at the same time. After the fifth month, a little meat broth should be given, but no addition of oatmeal or of cracker until after six teeth have appeared.

Such a milk as is furnished the author's institution is often absolutely impossible to obtain in large cities, and other substitutes must be made use of, of which the following are worthy of consideration:—

1. Egg-drink, consisting of 200 grammes of boiling water, which, cooled down to 37° C., is stirred up with the fresh white of an egg, and seasoned with salt. To this mixture is added, later, the yellow of an egg, in gradually increasing doses. This preparation is particu-

larly well adapted as an addition to a weak broth during teething, and should be given once or twice daily.

2. Concentrated milk, which, however, owing to the very large amount of sugar contained therein, out of all proportion to that found in the mother's milk, often occasions diarrhœa.

3. Liebig's food, in the form of extract; one part is to be dissolved in warm milk, previously boiled, and, at each time of administration, to be diluted with an equal quantity of water. After the third month, dilution should be gradually less and less. With this food, however, sometimes the children do not thrive, and vomiting and diarrhœa are caused. This is easily explained, when we remember that cow's milk is given with it. Great value is attached to:

4. Nestlé's infant's meal, in which a good Swiss milk in concentrated and dry form is added to the other ingredients. For very young infants, the proportion should be one table-spoonful of the powder to ten of water; for older ones, one to eight. To obtain a milk-pap, one spoonful of the powder should be stirred up with six spoonsful of cold water, and then boiled for a few minutes. This pap is suitable only for children with several teeth. The author has rarely seen any diarrhœa supervene upon the use of this powder, and never abscesses of the skin, or intertrigo.

5. Finally, the author has, in three cases, used a very finely divided mixture of leguminous and cereal meal, of Hartenstein, in Wiedershausen. Of this, a dessertspoonful is slowly stirred up in a soup-plate full of cold water, and, with the addition of a little salt, heated to the proper temperature.

THE CURE OF CROUP WITHOUT EMETICS.

Dr. HERMANN KLEMM, Leipzig (*Jahrb. f. Kinderheilkunde* N. V. vi. 4, p. 372, 1873; *Schmidt's Jahrbuch*, No. 10).

Emetics are only useful, as is well known, in the earliest stages, when we cannot be certain if we have to do with false or true croup. An emetic in such case removes spasm of the vocal cords and of the neighboring parts; if given again, later, with the expectation of loosening membranes, they are generally of no effect, or if vomiting is produced it does not loosen the membrane, and the child is unnecessarily weakened. The author saw in four cases decidedly beneficial results from Priessnitz's treatment, which Hanner already previously recommended. One of these cases, reported in full, appears to have been a severe case of true croup, but there was no microscopic examination of the thick, yellow, muco-purulent expectoration that followed later. The author recommends strongly in these cases the cold-water treatment, and gives the following cautions in using it. The child should not be carried about, as this prevents the sufficient amount of sweating. The child should be subjected early to the wrappings, to prevent carbonic acid poisoning of the blood taking place, and we should resort to this immediately after producing vomiting, if this have not been followed by improvement, or if vomiting be not produced. The wrapping is to be repeated every two hours. As local remedies, the author uses, in addition, inhalations of lime water, or of a solution of chlorate of potash. Local applications of nitrate of silver are not recommended, especially as it is very difficult with children to introduce a brush into the larynx with the aid of a mirror, and any other

method would be of no use. Small doses of morphine relieve the difficulty of breathing, and should, therefore, be given, even in fatal cases. The author is silent on the relief afforded by tracheotomy in such cases.

A CASE OF BELLADONNA POISONING.

Dr. Ludwig Fleischmann reports the following case in the *Wiener Medicinische Presse*, April 5, 1874, No. 114.

For the patient, a young girl six years old, affected with bronchial catarrh and a very troublesome, dry cough, a two-ounce mixture, containing six drops of tincture of belladonna, was ordered, the whole to be taken in the twenty-four hours. After the third dessertspoonful, the child's pupils became dilated, the eyes had a wild, staring look, and the patient became very restless and delirious. The head was rolled about, and the patient acted as if she saw figures in the air, with which she wished to speak. At the same time, there were violent movements of the hands and fingers, and frequent pickings at the bed-clothes. The face was red, and, owing to pain in the throat, the child refused to take drink. The proper antidotes were administered, and the next day there were no symptoms remaining, save the dilated pupils and redness of the cheeks. A careful chemical analysis of the remainder showed no reason to suspect that the prescription was improperly put up. In this case, therefore, the symptoms of poisoning were produced by two drops of the tincture. Reckoning the proportional dose for a child of this age to be one-third, and the maximum dose for an adult to be twenty-eight drops, three or four times a day, a single dose for this child would be nine drops. According to the Austrian pharmacopœia, the tincture is prepared stronger, and the maximal dose should be four to six drops thrice daily. Little anxiety is needed in prescribing belladonna for children, who, it is well known, tolerate this medicine, as a rule, well, in large doses. Many cases of poisoning with the fruit of this plant, eaten in very large quantities by children, have been reported where complete recovery took place, and it is not rare to prescribe it in good-sized doses, much beyond the physiological dose, in whooping-cough, without producing its poisonous effects. The author has himself seen ten drops of the tincture given within twenty-four hours in severe cases of laryngo-spasms without unpleasant effects, and still more frequently are large doses of the extract given. The above case is of particular interest, owing to the small dose of two drops producing for a short time very characteristic symptoms of poisoning, and also to the accumulative action of the medicine, which, given in divided doses every two hours, produced symptoms of poisoning within seven hours after the first dose.

Poisoning by belladonna, considering the frequency of its administration, is rare, and the most frequent cases are those where the berries have been eaten. Schroff relates a case where smoking the dried leaves was the cause of fatal poisoning. Owing to the more and more general use of atropine internally, the cases of atropine poisoning are more frequent. In the present case, we are forced to assume a peculiar susceptibility in the organism of the patient, which susceptibility was increased by a febrile disease, and a nervous irritability in a nascent state.

CHLOROFORM IN ECLAMPSIA INFANTUM.

C. F. KUNZE (*Allg. Med. Central Zeitung*, April 1, 1874, No. 26).

In by far the greater number of cases of convulsions, we are unable to detect the cause, and it is a well-established fact that such convulsions can take place without important organic changes being present. The conditions causing the convulsions pass rapidly away, and it is not even necessary that there should be any cerebral congestion. In all probability, we have to deal with an abnormal irritability of the nervous system. As proof of this, we find no increased temperature of the head, no injection of the bulb of the eye, no vomiting; there is no constipation, and no inflammatory pulse.

The author reports the following case: M. R., 11 years old, stout built girl, had, in her fourth year, a sickness, in which she had an attack of eclampsia infantum. The attack lasted two or three hours, and ceased after the administration of a stimulating enema and cool applications to the head while in a warm bath. No bad effects were left behind.

January 16, 1874.—Without known cause, was found unconscious, with general convulsions. The author being called, ordered three leeches to forehead, enema of salt and water, and an ice bladder to the head, although he found neither increased temperature of the skin nor of the forehead, and the child had had a regular operation the day before. No errors of diet had been made, the abdomen was soft, and there was no where tenderness on pressure. The pulse was 120–130 in the minute, and not particularly hard. At his second visit, four hours later, the leeches had drawn, and there had been a dejection; the head was cool, and yet the convulsions had not ceased. As the child had become cyanotic, and the lips were blue, and the respiration very rapid, with tracheal râles, the present condition having lasted eight hours uninterruptedly, it was expected that death would soon ensue. An attempt was then made with chloroform dropped upon a handkerchief. The convulsions ceased after a few inhalations, but consciousness did not return. The handkerchief being removed, the convulsions returned after a few minutes, and the chloroform was re-applied with equally good result, though but for a short time. Being then applied for double the time, the convulsions stopped for a quarter of an hour. With the next return, the application was carried to full narcosis. The child then began to breathe more slowly, the pulse went down to 100, the tracheal râles diminished, the blue lips became red, as well as the cheeks, and after half an hour the child opened its eyes and returned to consciousness. After that, there was no return of the convulsions. At the evening visit, the child was somewhat excited, but otherwise there was no disturbance of any kind. A solution of bromide of potassium (5.0 grammes ad 120.0 grammes water) was prescribed, and since then (six days afterwards) there was no return of convulsions, and the child was apparently in complete health.

RESOLUTIONS eulogistic of the character and labors of the late Dr. George Derby have been passed by the State Board of Health of Michigan, and the State Board of Health of California. These testimonials from such distant States are a significant evidence of the far-reaching influence of Dr. Derby's enthusiasm and ability in the department of science which he loved so well, and in which he worked so faithfully.

Bibliographical Notices.

Lunatic Hospital Reports.

WE have before us reports from Dr. Roy, of Quebec, Dr. DeWolf, of Halifax, Dr. Bartlett, of Minnesota, Dr. Kirkbride, of Philadelphia, Dr. Brown, of Bloomingdale, N. Y., Dr. Sawyer, of Providence, Dr. Jelly, of the McLean Asylum, and Dr. Walker, of the Boston Hospital.

These reports deal for the most part with affairs of local interest, and make no attempt to include matters of importance to the profession. This policy seems to be justified by the official character and limited circulation of the reports, as well as by the overwhelming amount of work usually devolving on the meagre medical staff of our insane hospitals. When a superintendent does find time to include a little of the result of his experience in a report it is doubly welcome.

Dr. Kirkbride discusses and approves the unanimous resolution of the Association of Medical Superintendents of American Institutions for the Insane, at their meeting last year, in regard to the care of criminal lunatics. The gist of it is that such criminals as become insane should be cared for in wards attached to a prison, or independently situated, and not in the existing State hospitals.

Dr. Roy has some interesting statistics and remarks on intemperance as a cause of insanity, and opposes the separate treatment of the so-called incurables.

Body and Mind. By HENRY MAUDSLEY. Second American Edition. New York: D. Appleton & Co. 12mo. Pp. 275.

THE second London edition of this now familiar book, and identical with the one in hand, was noticed in the JOURNAL, Nov. 13, 1873, at sufficient length to give the reader an idea of its value, not only to the profession but to the public. The subject, under Maudsley's treatment, becomes of general interest, and the book, though thoroughly scientific in spirit, is in active demand outside of medical circles. Four lectures constitute the first part, carrying the reader logically upward from the lowest evidences of intelligence in the animal kingdom to the highest, from reflex action to the organization of conscience. The second part consists of four essays: on Hamlet, Swedenborg, The Theory of Vitality, and The Limits of Philosophical Inquiry.

The Physiology of the Circulation in Plants, in the Lower Animals, and in Man. By J. BELL PETTIGREW, M.D., &c. London: Macmillan & Co. 1874.

IN the work before us, the author aims "at producing a comprehensive view of the circulation as it exists in the lowest vegetable and highest animal forms," endeavoring "to prove by a variety of arguments that the circulation, whenever and wherever found, differs less in kind than in degree," and that "the circulation in the lower vegetables and animals gradually develops into that of the higher, until we reach man himself; the circulation in the one being relatively as perfect as in the other."

In pursuance of this object, the author describes the circulatory system in a variety of plants and animals. Where original anatomical investigation forms the basis of these descriptions they are, as a rule, clear, accurate and minute, and constitute the really valuable portion of the work. The description of the muscles and nerves of the heart may be quoted as an example. But where function is to be inferred from structure (for it is in this way, and not by experiment, that most of Dr. Pettigrew's physiological ideas have evidently been obtained), the author's ignorance of physics and disregard of logic render his work entirely untrustworthy, and, in the hands of beginners, absolutely mischievous.

The fundamental idea which runs through the whole volume is, that the

so-called relaxation of a muscle is as much an active process as its contraction, and that the cavities of the heart, therefore, in dilating, fill themselves by suction. No experiments are offered in support of this view, and the experiments of others, which are inconsistent with it, are ignored. There is no allusion, for instance, to Kühne's experiment showing that a muscle, lying on quicksilver in order that it may not have even its own weight to support, retains very nearly its contracted form even after the removal of the stimulus which has caused contraction. The fact that there is no theoretical reason why the sarcous elements should not change their form in one direction as well as in another seems, for the author, to be a sufficient reason for concluding that both lengthening and shortening are active processes.

The volume abounds in statements without proof and in defective syllogisms, and were it not for a certain amount of good anatomical description and some ingenious suggestions of analogies, the work would hardly repay perusal.

H. P. B.

Archives of Electrology and Neurology: A Journal of Electro-Therapeutics and Nervous Diseases. Edited by GEORGE M. BEARD, A.M., M.D. Vol. I. No. I. May, 1874. New York: T. L. Clacher, No. 107 East 28th Street.

THIS is a handsome octavo of 143 pages, of which 115 are devoted to original articles. Its aim seems to be mainly clinical, and to be limited almost entirely to the explanation and illustration of the physiological and therapeutic actions of electricity. Viewed in this aspect, the *Archives* present a valuable and interesting group of contributions to medicine. We are particularly pleased with articles on Electrolysis of Scirrhus of the Rectum, by Prof. Crosby, of New York, and on Paralysis of the Recurrent Laryngeal Nerve, by Dr. Knight, of Boston. The remarks on Electrolysis of Stricture of the Urethra are diffuse, and are not quite clearly made, but appear sound and reasonable. Dr. Beard's description of his method of treating the base of malignant tumors is clear, and worthy of attention. Roberts Bartholow gives a fuller account than has yet been published of the experiments he made in stimulating the brain of a living woman. To physicians desirous of learning more about the medical electricity of our day, the *Archives* will be very interesting. A second number is promised in six months.

BOOKS AND PAMPHLETS RECEIVED.

Inorganic Cardiac Murmurs. By A. D. Keyt, M.D. Cincinnati. Read before the Ohio State Medical Society, June, 1874, at its Annual Meeting in Toledo.

The *Psychological Journal* has re-appeared with the title of the *Psychological and Medico-Legal Journal*. It is edited by Dr. Hammond, assisted by Dr. T. M. B. Cross. The style and binding of the *Journal* are new and tasteful, and the contents of the first number interesting.

Messrs. Wm. Wood & Co. announce the translation of a *Cyclopædia of the Practice of Medicine*, edited by Dr. H. von Zeimssen, Professor of Clinical Medicine at Erlangen, assisted by the most eminent clinical instructors of Germany. The translation will be done by professional gentlemen, many of them former students of the writers of the different treatises. It is proposed to publish three or four volumes a year in order to distribute the cost of subscription equally over four years.

Essays on Conservative Medicine and Kindred Topics. By Austin Flint, M.D. Philadelphia: Henry C. Lea. 1874.

The Physiology of Man. By Austin Flint, Jr. M.D. New York: D. Appleton & Co. 1874. (For sale by James Campbell.)

Transactions of the Eighth Annual Meeting of the Medical Association of the State of Missouri, held at Sedalia, April 21, 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 13, 1874.

Who is to blame for the abominable crimes of the day? The government, encouraged or bullied as it is by the mistaken and false philanthropy of the day. "Thou shalt not commit murder" is held up as the commandment to Governors and Councils as a positive reason for pardoning crime, and the consequence is a dozen murders by those who know, or who calculate, that punishment will never overtake them. As we have before intimated, it is our opinion that insane people, as a rule, know enough to restrain themselves, when everyone else knows that certain results as punishment will surely follow certain causes. The insane man, who is deprived of clothing because he tears it up, learns to restrain his temptation to tear, and if his insanity be so positive and so incurable that he cannot refrain from taking life, the sooner he is put where he is past temptation the better.

What is punishment for? We are told, to reform the bad and to protect the public. Is the punishment established by the laws too severe? If so, abolish the laws or modify them; but let us know if we have got to go from our houses armed for our own protection, which the law refuses us! Within a few weeks, the Governor of Maine has deducted from the sentences of various prisoners an average of one hundred and fifty days, variously ranging from eighteen to four hundred and sixty-nine days. This was for good conduct in prison; an absurd, a wicked reduction, if the original sentence was just. It is simply an offer to others in prison to behave well long enough to get out of prison to begin crime again.

The Lieutenant-Governor of this State has done worse than that. He has pardoned Thomas R. Stackpole, who was sentenced to twenty years imprisonment for attempting to commit rape; and he has pardoned Michael Carty, who was sentenced for life for committing rape; and he has pardoned William R. Scott, who was convicted on the charge of inducing a girl to commit suicide, and *no cause is assigned for the pardons*. Were these all pardoned because they have become good men and true? Or were they insane? Or what? The public will not always consider the plea of insanity a good excuse for crime. It is almost time for government to protect the victims, as well as the subjects, of insane impulse. The public must, sooner or later, see the absurdity of trial by jury, when juries are made up as they are to-day, and where it is only necessary to plead insanity as an excuse for the vilest of criminals. The better class of New York citizens may soon-

er or later be tempted to imitate the San Francisco vigilance committee. If kidnapping and murder are to be as common as is promised, Philadelphia and Boston will not be long behind them.

At a meeting of the Commissioners of Charities and Correction in New York, held during the last week in July, a resolution was introduced and passed re-organizing the Medical Board of Bellevue Hospital. This Board consists of nineteen members, twelve of whom have been removed from their positions by the terms of the resolution referred to. The names of these gentlemen are as follows:—Drs. Isaac E. Taylor, Lewis A. Sayre, John J. Crane, John W. S. Gouley, B. Fordyce Barker, Frank H. Hamilton, Alexander R. Mott, Thomas M. Markoe, Austin Flint, Jr., Wm. M. Polk, Wm. T. Lusk, and E. G. Janeway. Of these, Drs. Crane, Sayre and Taylor have been members of the Board for twenty years, and the majority of the others from five to fifteen years.

One would naturally suppose that the Commissioners had been influenced only by the most weighty reasons in taking such unusual and extraordinary action in regard to the Hospital appointments. Thus far, however, no reason whatever has been assigned by them for this change. This action on the part of the Commissioners will seriously cripple the corps of instructors at the Bellevue Hospital Medical College, and, if persisted in, may result in the destruction of the School. It is darkly intimated that professional jealousies are at the bottom of this movement, and that the brilliant and rapid success of this school has made it altogether too dangerous a rival to older seats of medical learning. We can hardly believe that the profession of New York will countenance any such movement as that which has been hinted at, and we shall hope to hear that the force of medical opinion has induced the Commissioners to see the propriety of reconsidering their action.

SOME of the legitimate results of the late hydrophobia excitement in New York are now beginning to make themselves apparent, and offer forcible examples of the evils that may arise from the injudicious efforts of an enterprising press to afford entertainment to its readers during an unusually dull season. We learn from one of the New York papers that a member of the police force of that city was recently bitten by a dog, and after a short period of incubation, during which the man was in an unusually depressed and nervous state of mind, symptoms of hydrophobia began to show themselves. The unfortunate patient was immediately subjected to various tests, and some of the new and infallible modes of treatment lately discovered in New York were planned for him. Fortunately—for the patient—his case has turned

out not to be hydrophobia, and the poor creature has been allowed to return to his home from the Park Hospital, whither he had been sent the day previous.

Cases of hypochondriasis, of which the above was perhaps a more striking example than usually occurs, are, unfortunately, but too frequent in times of hydrophobia excitement like that through which New York has lately passed, while at the same time it is, to say the least, somewhat doubtful whether the disease has been unusually prevalent, the character of many of the so-called cases of hydrophobia being extremely uncertain.

The entertainment and instruction which the New York public has received from enterprising reporters, and, we regret to say, from certain members of the medical profession, can hardly compensate for the agony of mind endured by a number of unfortunate hypochondriacs during the weeks which have followed this excitement. The canine species can also well claim a share of our sympathy at this time. The way in which many slightly indisposed members of this race have been either chased, muzzled, shot or asphyxiated (by a process said to be ingeniously cruel), and the dental operation to which it is proposed to subject their more fortunate brethren, are all symptoms but too suggestive of the hysteroid condition of the public mind.

It is a pleasing contrast to turn from these accounts to the timely work on Rabies and Hydrophobia, by George Fleming, an English veterinary surgeon, a notice of which has lately appeared in the *British and Foreign Medico-Chirurgical Review*. The author's suggestions in regard to the general plans of prevention which ought to be adopted by local authorities in reference to hydrophobia, although not novel, are sensible and interesting in this connection. In addition to taking due care of the health of dogs when employed for useful purposes, he recommends the diminution of the number of useless dogs, and especially in the case of dogs kept by poor people, "both on the ground of the propagation of disease by ill-fed and dirty creatures, and also because the consumption of food required for their maintenance represents so much aliment subtracted from the poor people themselves." The keeping of pleasure dogs by the rich is strongly condemned, and to lessen the number of these pets he suggests the imposition of heavy taxes. By some such precautions as these, continually and stringently kept in force, we might be spared much fear and excitement on the part of the community, and periodical slaughters similar to the one we have recently witnessed.

THE Massachusetts Railroad Commissioners did an excellent thing recently in urging the discontinuance of the use of the locomotive

steam whistle on the lines of railway leading from the city, exception being made only in the case of emergency, as a danger-signal. Aside from the annoyance which the locomotive shrieks have caused to people in health in the thickly settled districts through which some of the roads pass, the distress and permanent injury inflicted on invalids by what is shown to be an unnecessary practice, should have long ago caused this peculiarly American institution to be numbered among the half-forgotten barbarisms.

Correspondence.

PROFESSOR SCHIFF VINDICATED.

MESSRS. EDITORS,—Various reports, accusing Prof. Schiff, the eminent physiologist, now in Florence, of unnecessary cruelty in his experiments upon living animals, have appeared in some of the European and American journals within the last year or two. For those who know Prof. Schiff personally, no refutation or denial of these reports is necessary. Those who know him only as an accomplished and eminent physiologist, who has added largely to the physiological knowledge of the present day (and consequently to the relief of human suffering), will be glad to learn from the subjoined communication that no cruelty or unnecessary pain has been inflicted by him in his scientific investigations.

Dr. William Wilson, from whom I received the following communication, I am happy to say, is known to me personally. He is an English physician, a fellow of the Royal College of Physicians, London, and formerly was physician to the Royal Free Hospital, London. His statements may be accepted without reserve. A natural indignation at the slanders perpetrated against his distinguished townsman pervades his letter.

Very truly yours,

EDW. H. CLARKE.

A few months ago, some serious charges were brought against Prof. Schiff, the eminent and learned Professor of Physiology in this University, of unnecessary cruelty to animals in the prosecution of his scientific researches; some of these were preposterous and ridiculous, many so much so as to carry with them their own refutation; but, nevertheless, they produced a painful feeling in the public mind. For my own part, I was simply astonished, having worked for many months in successive years at the Laboratory, and having always seen much of the kindness of feeling shown by the professor to the unconscious contributors to physiological science. Now, admitting that some or all the parties who rushed into print were actuated by humane and honorable feelings, the most cursory examination proves that all their statements are grossly exaggerated.

A writer in the *Times* says: "Owing to the temporary absence of counsel, the action which had been brought against Professor Schiff and the municipal authorities has been adjourned;" adding, "no further notice of the trial has since appeared in the Florentine journals;"—then comes a gratuitous assumption of his own—"probably because the point at issue has been privately and amicably settled, and the defendants have pledged their words that the offence shall not be repeated." Now no trial was ever brought against Professor Schiff or the authorities. Prof. Schiff was once summoned before the tribunal as a witness, and his evidence was such that the parties who gave notice of an intended trial not only withdrew it, but the Marquis Capponi wrote a letter to the professor, declaring that he had not charged the professor with the offence referred to, and that it was all a mistake; the first assertion was false, the second correct. The professor's evidence satisfactorily proved that the screams and barking complained of originated,

principally, from his accusers' own dogs; that his dogs, of which there were very few, were excited by this during the night, and during the day by the presence of a number of strange workmen. The correspondent having now established a fact (?) to his own satisfaction, comments on it as follows: "We have not been told whether the German professor has been bidden to desist, or has been simply bound to choose a more quiet locality for his exploits."

A writer in the *Saturday Review* says: "In all great centres of scientific inquiry, Paris, Berlin, Vienna, &c., vivisection has been forbidden, and the professor will surely be given to understand that if vivisection is at all required in the interests of science (about which competent persons entertain serious doubts), it should not be practised without such relief as ether and chloroform afford in all painful operations on the human body, and the German professor well knows that he would be taken to task and punished in his own country." This is a pure invention; the professor always uses chloroform on such occasions, and it is perfectly notorious that there is a Physiological Laboratory in every German University; therefore it is clear that *competent judges* do hold the study of physiology to be of paramount importance to the student of medicine and surgery.

In another communication, Dr. W., a Homœopathic correspondent, says: "During a very long course of study at the Medical School of Florence, I never heard of Prof. Schiff's using chloroform; *he used occasionally to make an aperture in the windpipe, in order to suspend the action of the larynx, and thus prevent the exquisitely tortured animals from crying out in pity.*" The italics are mine. The writer tells us he has studied physiology under eminent and qualified experimenters in France and Italy, yet it never occurred to him that the aperture in the windpipe was a necessary step in the performance of artificial respiration, by which Prof. Schiff has satisfactorily proved that the fatal effect of poisoning from strychnine, curara, &c., may be obviated. When Dr. W. studied in Florence, there were no lectures on Physiology, and no Physiological Laboratory. Prof. Schiff declares he does not know his assailant by sight, and does not believe he ever was in his Laboratory.

Another interesting charge of cruelty and indifference to suffering is brought against the unfortunate professor. The eminent Prof. Desor paid a visit to the laboratory, and took a non-practising medical friend with him, who wrote an article in one of the Italian papers, thus disclosing the secrets of the prison house: "Among the animals was a large dog, from whose left side was hanging an internal organ, either the stomach or a portion of the intestine, the result, probably, of an operation recently undergone." The aforesaid dog did not even belong to the professor, but, in consequence of this circumstance, was retained for some time, and exhibited as a curious specimen of accurate diagnosis. He was the subject of *congenital umbilical hernia*.

The redresser of the wrongs of dogs further says, "the keeper of the Dogs' Home told me that he had made over to the Professor 700 dogs in one year, and I have no hesitation in saying, from past experience (?), that 680 of them were tortured for nothing." Now, during two months that hydrophobia was exceedingly rife at Florence, the police regulation that all vagrant, unmuzzled, ownerless dogs should be seized was stringently carried out, and, during that period, 120 of these were consigned to the physiological laboratory. Now this number is ingeniously but dishonestly multiplied by 6, thus forming a total of 720, as though the epidemic had lasted a whole year. During the months of October, November and December of 1873, 33 dogs were delivered to the laboratory, and following the above mode of calculation, Prof. Schiff only received 132 in the year.

The writer next quotes the Homœopathic axiom, "Physiology never can relieve human suffering, or prolong life; it has never pointed out a single remedial agent for the relief of disease." Again, "Physiology aims at a knowledge of the functions of health, of the formation of healthy states (rather an ambiguous expression), but this knowledge can never suggest a remedial agent." Does the writer mean that no deductions drawn from the study of

physiology ever suggested a remedy? Or is it a mere quibble, on the principle that anatomy never performed an operation? As to repudiating all attention to healthy function as a guide in appreciation of morbid phenomena, how estimate a deranged condition of the circulation unless conversant with the normal state of the pulse? Dr. Fayrer, in India, has made some interesting experiments on dogs to test the statement of Dr. Halford, in Australia, that ammoniacal injections into the veins is a certain and unfailing antidote against the poison of serpents introduced into the human system. The result has been that, whatever the case may be in Australia, it is no antidote whatever against the more virulently poisonous reptiles of India; would the writer contend that no good has resulted from these experiments? Had Dr. Halford's assertions been accepted, without questioning, in India, much loss of life might have resulted therefrom. In the same way many experiments recently instituted have established or controverted the correctness of experiments performed by earlier inquirers; further, Prof. Schiff's assailant would probably maintain that all electrical experiments on healthy tissues would be no guide as to its employment under diseased or deranged conditions of the nervous system.

The *Daily News* declares "that after the great exposures made at Prof. Schiff's trial (there never had been the semblance of a trial), there can be little doubt of the necessity of placing on the practice of vivisection those limits, &c. &c." This is an instance of the practice adopted by these writers of assuming a fact as established, to tally with certain conclusions which they deduce from it. The same journal protests against all experiments in physiology, maintaining that if anything is at all desirable, it could be effected by means of pictures and models, or the dissection of dead bodies!!! It may be observed that thus, after holding Prof. Schiff to public execration for daily and nightly cruelties, they have now addressed a letter to him, of apology, and confessing that the whole thing was a mistake!!! The fact being that upon an inquiry they ascertained that at the period when these accusations were brought against him, Prof. Schiff was not on the premises; in fact, during part of the time, he was in Paris, where he used his influence in inducing some experimentalists to employ ether in cases where it had not otherwise been used; further, a letter was addressed to Prof. Schiff in one of the public papers from several influential persons, stating that they withdrew their names, and expressing their regret that they had signed a paper calling upon the legal authorities to prosecute the said professor, they, upon mature inquiry, having ascertained that those charges were perfectly groundless.

These accusations have had a wide-spread circulation among the travelling American public, who, having read the charges without seeing their refutation, on returning to their native country might innocently express their horror of cruelties supposed to have been perpetrated by a man who is an honor to science and progress. I have therefore thought that a true exposition of the facts might not be misplaced, and would enable members of the profession to express, without hesitation, their disapprobation of such proceedings, and to assure those with whom they might come in contact that the parties promulgating the said charges were not guided by a simple love of truth and justice.

WILLIAM WILSON, M.D., F.R.C.P.

Florence, June 28, 1874.

GUSSENBAURE'S FRACTURE APPARATUS.

VIENNA, July 20, 1874.

MESSRS. EDITORS,—In your issue of June 18, is a slight mention of Dr. Gussenbaure's apparatus for fractures of the upper end of the humerus. Please allow me to make a correction. Extension is not made by "weight and pulley," but, as in Taylor's apparatus for hip-joint, by the key and ratchet principle; that is, the points of extension and counter-extension are connected by a steel shaft. This is formed of two rods, one sliding within the other, and moved by a key, which fits into the cogs on the smaller rod.

As Dr. Gussenbaure says, his splint is the principle of Taylor's hip-joint

apparatus applied to the upper extremity. It is modified to avoid the pressure on the vessels and nerves, which would result from taking the axilla as a point of counter-extension. To effect this, on the upper end of the steel shaft is fastened a steel bow, large enough to encircle the axilla; it can be hooked above to a metal piece, which fits on the shoulder. This is fastened to a gutta percha shoulder-cap, which is held in its place by adhesive plaster and bandages.

The point of counter-extension being the shoulder, the point of extension is at the elbow. Strips of adhesive plaster connect the arm below the fracture to a metal strip, padded, which fits under the point of the elbow (the arm being flexed). This metal strip is welded to the steel shaft applied to the inner side of the arm. The steel bow at the upper end of the shaft is hooked on to the shoulder-piece, the shaft is lengthened by means of the key, and extension is applied.

The steel bow and the metal piece on the shoulder-cap both rotate so that the apparatus can be applied to either side.

In the place of the shoulder-piece, Dr. Gussenbaure has used a light yoke, fitting on both shoulders. It was devised with the idea that it might be required where a great deal of force was needed in extension. He is not, however, sure that it will ever be necessary.

An apparatus is, if I remember, figured in Hamilton's *Fractures and Dislocations*, something similar to this, differing, however, in that the steel rod is to the outer side or back of the arm. This German splint, though a little more complicated, has, as I think, the advantage of more steadiness, and is, therefore, capable of applying more extension.

In the few cases in which the apparatus has been applied, it is said to have been very serviceable.

Yours truly,

E. H. BRADFORD.

Obituary.

DR. H. P. BLAIR.

DR. HORACE P. BLAIR died in Georgia, Vermont, July, 14, 1874, in the 76th year of his age. He was the only surviving physician who was in practice in Franklin County forty years ago, except one, the venerable J. L. Chandler, of St. Albans, now in his 82d year. Dr. Blair was a worthy, exemplary man, a kind and judicious physician, a man vigorous and healthy, for one of his years, and bade fair to live to extreme old age. The latter part of April last, he discovered a small, hard tumor on the right lobe of the thyroid gland. It gave him very little discomfort, except mentally, for it was his impression that it would be something that was of a malignant nature, and prove fatal. Three weeks from his first discovering it, he called my attention to it. It was large as a small-sized hen's egg, and of a hard feeling, almost like bone. The tumor continued to grow with great rapidity, causing difficulty of respiration and deglutition, and caused his death in ten weeks from his first noticing it. According to his wish, as well as that of his friends, the tumor was removed after his death, in the presence of Drs. Chandler, Branch and Dunsmore, of St. Albans, and Clark and Knight, of Georgia.

It proved to be a well-developed, medullary cancer, or a large portion of it was of the encephaloid variety; its weight, when dissected out, was one and one-half pounds; some portions were hard, almost cartilaginous, and one portion, of an ovoid form, about three-fourths or seven-eighths of an inch in diameter, appeared to be solid bone, but on further examination a small aperture was discovered, and it was found to be hollow, or rather filled with a cream-like pus. What surprised us was its rapid development and malignancy, destroying a healthy, vigorous man of his years, in the short space of ten weeks. No other disease was apparent. None of the physicians present had ever known so rapid a growth, and so full a development in so short a time, and hope, at least, such cases are not common. R. K. CLARK, M.D.

Medical Miscellany.

DR. C. F. FOLSOM, the recently appointed Secretary of the State Board of Health, has returned from Europe, and will enter on the duties of his office the middle of September.

THE International Pharmaceutical Congress will be opened at St. Petersburg to-day. One of the principal questions of discussion will be the formation of an International and Universal Pharmacopœia.

THE weather, this summer, in Dublin, is said to have been extraordinarily oppressive, and cases of sunstroke have occurred. This is in marked contrast to the comfortable weather we have enjoyed thus far this season.

At the last meeting of the Massachusetts Medical Society (its ninety-fourth annual meeting), papers of great value were read, and the attendance was very large; larger, it is said, than the attendance at Detroit. Dr. Benjamin E. Cotting, of Roxbury, was elected President. A wiser and better selection could not have been made; the newly-elected President, both personally and professionally, deserving the honor conferred.—*American Medical Weekly*.

THE OUT-PATIENT SYSTEM AT LYONS.—In Paris, and all large towns of France, there is the same abuse of indiscriminate gratuitous advice at the hospitals as with ourselves; persons, who are perfectly well able to pay, not hesitating to over-crowd the out-patient rooms. Not only do many thus get advice most undeservedly, but the number of patients is rendered so numerous as sometimes to require one hundred to be seen within an hour. At Lyons, the authorities have determined upon attempting to limit this abuse by laying down the rule that no applicant shall be entitled to gratuitous advice unless provided with a recent *certificat d'indigence*.—*Union Medical*, July 14.

A WORD IN TIME.—“It surely is time,” says the *British Medical Journal*, speaking of a vacant office in Edinburgh, “that the system of testimonial-begging, and the highly objectionable attitude of blowing one’s own trumpet, which it forces upon a number of excellent and otherwise modest and dignified men of science, should have some check put upon it. . . . A system which is alike degrading and unsatisfactory to the candidate for appointment, to the individuals who are asked to favor him with one of the usual ‘puffs,’ and to the electors to whom the collection of so-called testimonials is addressed. . . . In Germany, candidates are not even invited to apply, but the members of the governing body address an invitation to the man whom they consider most competent; . . . (here) it is the man of science . . . who adopts the attitude and language of a pill-quack, or of a flunkey out of place, in order to get elected . . . (to expect which is) an insult to the self-respect of professional and scientific men.”

Let the members of our profession look sharply to it that this vile system does not get a foothold amongst us.

A WATERLOO BULLET.—The following particulars regarding the bullet extracted from the Waterloo veteran, residing at Wadhurst, Sussex, may be of interest. Cases in which bullets have long remained buried in the tissues, with little or no practical inconvenience, are not uncommon, and Dr. Henry Harland, who extracted the one in question, did not attach any professional importance to the circumstance, apart from the time it had remained, and the historical reminiscences and interest connected with it. The name of the Waterloo veteran is James Jenner, who has reached the good old age of 83. He was in the 44th Regiment, and in the thick of the action near Quatre Bras, when he was struck in the hand by a French bullet, which, having passed through the fleshy part of the ball of the thumb, became imbedded in the palm of the hand, where it remained for upwards of fifty-nine years.

The contraction and thickening of the palm made it difficult for him to hold his agricultural implements, and about three months ago, whilst working as a gardener on some hard ground, the hand inflamed and an abscess formed, from which a ball was removed, which weighed exactly six drachms and five grains. It had retained its original shape, and was slightly flattened at one part where it had struck against the barrel of his musket. The wound is rapidly healing.—*The Lancet*.

NOTES AND QUERIES.

"PROGRESS IN MEDICINE"

Is the title of "the President's Address" at the annual meeting of the South Eastern Branch of the British Medical Association, by George F. Hodgson, M.R.C.S., of Brighton. From this address we wish to take a paragraph to show our younger men what progress has been made by the unselfish efforts of their predecessors, though they can never realize the courage and endurance that have been necessary to effect the change. PARSFTL.

"Many invalids come to Brighton to convalesce (sometimes to die). Among such as come under my notice, one every now and then turns up who has been mercurialized, and that for non-specific disease. It is against the perpetuation of such a mistake that I wish before this considerable assemblage of medical men to protest. Of course, in common with all the rest of you who have attained to middle life, I was trained by my teachers to consider mercurialism as indispensable in the treatment of all acute inflammations. The classical lectures of Dr. Watson forcibly impressed this upon us, and, in equally powerful and elegant language, Dr. Latham's clinical lectures made it a *sine qua non*; but these were about the last physicians of celebrity who so taught. About fifteen years back, Professor Bennett, of Edinburgh, and the late Dr. Todd, of London, both taught and published the uselessness and the banefulness of this treatment, in a manner that could not be refuted. Dr. Habershon and the late Dr. Tanner (a pupil of Todd's) followed with valuable publications in the same direction; and now, I suppose all our leading physicians and surgeons are unanimous on the subject. Sir Thomas Watson himself has lived to acknowledge its soundness likewise. How is it, then, that some men still adhere to this old-fashioned and injurious practice? Four-and-twenty years ago, on account of a deep-seated affection of the eye, caused by overuse of books and microscope, I was treated by a famous oculist (Mr. Dalrymple) with a prolonged course of mercury, which seemed to render my eye worse instead of better, and certainly grievously impaired my general health. Consequently, I became a ready disciple of Bennett and Todd, and ever since that time I have entirely abandoned the use of mercury in all inflammatory disorders, whatsoever organs might be affected; and, I may add, with an immensely more satisfactory result than previously. The cure of the disease has been surer and quicker, and the dreadful *anæmia* and prolonged debility, consequent on a long mercurial course, have been avoided. So recently as in the penultimate number of the *British Medical Journal*, a gentleman narrates a case of general paralysis in a man, consequent on an injury to the head, which he says he 'treated with mercury until the system was affected.' On what grounds, I cannot understand."

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities for the week ending August 1, 1874.

Boston, 205; Worcester, 24; Lowell, 21; Chelsea, 7; Cambridge, 40; Lawrence, 15; Springfield, 8; Lynn, 13; Gloucester, 3; Fitchburg, 5; Newburyport, 5; Somerville, 6; Fall River, 36; Haverhill, 9; Holyoke, 12. Total, 419.

Prevalent Diseases.—Cholera infantum, 143; consumption, 48.

Of the largely increased mortality from cholera infantum, Boston reports 87 deaths, and Cambridge reports 10.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 8th, 219. Males, 121; females, 98. Accident, 1; abscess, 1; apoplexy, 2; asthma, 1; inflammation of the bowels, 8; bronchitis, 2; inflammation of the brain, 1; disease of the brain, 4; burned, 1; cancer, 4; cerebro-spinal meningitis, 1; cyanosis, 1; cholera infantum, 85; cholera morbus, 6; consumption, 28; convulsions, 2; debility, 4; diarrhoea, 11; dropsy, 1; dropsy of the brain, 2; dysentery, 3; erysipelas, 1; scarlet fever, 1; typhoid fever, 5; disease of the heart, 8; hernia, 1; intemperance, 1; jaundice, 1; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 9; laryngitis, 1; marasmus, 6; old age, 2; paralysis, 1; spina bifida, 1; tabes mesenterica, 2; thrush, 1; teething, 1; whooping-cough, 1.

Under 5 years of age, 135; between 5 and 20 years, 12; between 20 and 40 years, 25; between 40 and 60 years, 21; over 60 years, 25. Born in the United States, 173; Ireland, 30; other places, 16.

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Original Communications.

SURGICAL TREATMENT OF EMPYEMA.*

By HENRY CLARKE, M.D., of Worcester.

Read before the Massachusetts Medical Society, June 3, 1874.

LET me now proceed to the report of the cases, five in all, which I have treated by making free openings. When I performed my first operation, I was not aware that it had been done in this country. In this remark I do not, of course, include cases of *empyema necessitatis*, that is, where the abscess points externally to the ribs, as it has always been the practice to open such.

In a few months, however, after my first case, Dr. J. G. Blake, of Boston, reported four cases which he had successfully treated in this way. See this JOURNAL, June 5, 1873.

CASE I.—Jan. 21, 1873, I was called to see W. F., aged about 25. Constitution good. I drew from the patient and family the following history. Had smallpox or varioloid about Christmas. Ten days previous to my visit, he had a chill, and a stitch in left side, which was followed by cough and fever. "Not believing much in doctors," to quote his own language, no physician had attended him during his illness with smallpox, and none was called at this time. He was, however, well nursed and cared for by his mother. A week from this attack, and two days previous to my visit, he was seized with a pain in his right side. He became so ill and so much alarmed that he wished for a physician, and I was summoned. I found him reclining in bed. Breathing, short and painful; pulse, 110; temperature, 104°. His face was red and well pitted, showing that he had had a copious eruption of smallpox pustules. Auscultation and percussion gave the following results. Over left side and back, low down, moderate dullness, coarse crepitus, and slight ægophony. Over base of right lung, some râles, diminished respiration and increased resonance of voice. Diagnosis, double pleurisy. At this time, there was pain in right, but none in left, side.

Jan. 26th.—Five days later, pulse 100; temperature, 102°. Less pain in side. Increased dullness on percussion over base of right lung, ægophony and bronchial respiration.

Physical signs on left side of chest unchanged. Cough troublesome; expectorates a ropy, dark-colored mucus; has considerable perspiration. Ordered quinine, opiates and stimulants, and a small blister on left side. Patient remained in much the same condition for several days. The effusion into right side increased slowly, and on the 30th,

* Concluded from page 155.

the ninth day of treatment, I applied a large blister under right scapula. I saw no good results from the blister, but, on the contrary, the fever seemed to be increased by it, and the patient was much irritated. Pulse increased in frequency. This effect of the blister, taken in connection with the profuse perspiration, led me to think that I had to deal with something more than simple serous exudation. There was but little change in the condition of patient for a week or more, except that the fluid in the chest steadily but slowly increased. The minutes of the case, made Feb. 9th, ten days later, are these:—

Pulse, 108; temperature, 103·5°; cough, at times, urgent; character of expectoration unchanged, still prune-colored. Profuse night-sweats. Has a smothered sensation in chest. Lies with the shoulders elevated. Flatness on percussion extends nearly to top of right shoulder. Entire absence of respiration over lower half of lung. Intercostal spaces less marked than on left side. No decided bulging of the ribs. At base of left lung, and extending up to angle of scapula, some crepitus, but respiration vesicular.

Thoracentesis was advised, but patient and friends urged delay. There was but little change for a week or two, and the operation was not performed until the 21st. The patient was much reduced in strength, too much so to sit up. With the advice and assistance of Drs. Martin and Wood, I made the puncture with the small trocar of the Bowditch apparatus, and the point of election was in front, in the fifth intercostal space, midway between the axillary and mammary lines. Three pints of thin pus were pumped off, the patient lying propped up in bed. Severe coughing was induced by the operation, but was relieved by opiates, and the following day he was more comfortable. He improved in strength, and in every respect for ten days. The cough, however, continued troublesome, and the character of the sputa was but little changed. At the end of two weeks, he began to complain of more oppression in breathing, to have more fever and perspiration, and the physical signs gave clear indications of a large re-accumulation of the fluid. I now advised making a free opening, but it seemed to the patient and friends a fearful thing to do. I explained to them the nature of the operation, and gave them the authorities for the proceeding. While admitting, with entire frankness, the novelty of this method of treatment in this country, and also the unfavorable condition of the patient, I urged it with great persistency, believing that it afforded the only reasonable chance of recovery, as another tapping would only give temporary relief. The patient grew steadily worse, and at the end of another week, or three weeks from the time of the first puncture, when in an extreme condition, consent was obtained.

March 15th, I made the opening, assisted by Dr. Gage. The patient reclining in bed, I first thrust in the needle of the aspirator, to make sure of finding pus, and then made an incision two inches long at the same point, viz., the fifth intercostal space between the mammary and axillary lines, and then dissected down to the pleura. When this was reached, I put the forefinger of the left hand upon the lowest rib, so that the finger nail was just above the edge of it, and then passed the point of my knife along the back of my finger, punctured and cut right and left, making an opening corresponding in extent to the outer one. There was scarcely any bleeding, and about three pints

of thick pus flowed out. I did not wash out the cavity at the time, and after matter had ceased to flow freely, I crowded a piece of soft linen into the opening between the ribs. In the evening of the same day, I syringed out the cavity with warm water. There were no indications of shock. The following morning, March 16th, his pulse was 100, temperature 102°. He had taken stimulants freely, and opiates sufficient to relieve the cough in a measure and to procure some sleep. I syringed out the chest night and morning, and he began to improve in every respect. He took nourishment eagerly, and stimulants without measure. Half a pint of brandy and a bottle of claret or hock were daily consumed. On the eighth day, his pulse was 98. Tongue began to clean at the end, cough had diminished, and expectoration was lessened in quantity, but was still discolored. On the evening of the eighth day, I noticed an unpleasant odor to the discharge, and the patient said he did not feel so well. In the morning, I found a great change in his condition. His feet and hands were cold, countenance pinched and pulse feeble. The discharge from the wound was thinner and very offensive. I washed out the cavity with a solution of carbolic acid, one part of the acid to ninety-nine parts of water. I did this night and morning, and prescribed quinine, fifteen grains daily, with ten drops of the muriated tincture of iron every six hours. The patient lay for several days in a desperate condition. The pulse ranged from 130 to 140. By the fifth day, he showed signs of improvement, and on the eighth day, that is, the fourteenth day after the operation, I made the following record: Pulse 116; feet and hands warmer; countenance less sunken; discharge thicker and less offensive.

The fœtor emitted by the decomposition of pus in the pleural cavity seems to me to be peculiar. Like the pathognomonic odor of gangrene of the lungs, once experienced it can never be mistaken. A drop of the pus upon my fingers would give off a nauseous odor for a whole day, in spite of soap and hot water. I have experienced something like this in subsequent cases, but nothing approaching it in degree.

But to return. My patient continued for ten days to improve. The pus became thick and healthy in appearance, but it was at no time entirely free from a nauseous smell. Then suddenly, as by an eruption, the same fœtor returned, accompanied by the same alarming symptoms. No efforts were, however, relaxed, and he received his medicines, nourishment and stimulants with the utmost regularity. I changed from carbolic acid to a solution of permanganate of potassa and to tincture of iodine with iodide of potassium. I saw no advantage in them over the former, and returned to the acid, using a stronger solution: two teaspoonsful of the liquid carbolic acid to a pint of water and an ounce of glycerine. This seemed to work better. The fœtor diminished, and the patient improved accordingly. The cough was persistent, and râles were heard over both apices to such an extent that I feared phthisis. The sputa became light colored. The wound granulated, and the opening daily grew smaller, until it became difficult to wash out the cavity sufficiently. It was easy to pass in the catheter, but the water and pus could not easily flow around it. This made the syringing a slow and tedious process. I tried leaving in a piece of drainage tube, and also a piece of flexible catheter, but both proved unsatisfactory. I therefore

continued, each day, to pass in between the ribs a piece of folded linen, which kept the wound from closing, and I succeeded in washing out the cavity quite well by first inserting a piece of catheter four or five inches long and passing in by the side of it a smaller one, more flexible, through which I forced the carbolic solution. The urine, however, soon became discolored, showing the absorption of the acid. It was clear when passed, but after standing a short time it became almost as black as if ink had been put into it. I observed no bad effects, and continued to use the same strength for several weeks. The discharge was at no time free from a disagreeable odor, but the patient slowly and steadily gained ground. By the 12th of May, two months less three days from the time of the operation, the discharge having nearly ceased and become more or less serous, the opening was allowed to close, which it did almost immediately. This patient continued to cough for nearly two months longer, but at last made a good recovery, and is now in excellent health.

CASE II.—*Empyema necessitatis*.—P. T., admitted to the City Hospital at Worcester, May 22, 1873. The following account is from the hospital records:

"Was well until five months ago, when he fell upon the ice and hurt his left side. Was ill in bed about three weeks. Had pain in the side and coughed severely. He has now free expectoration of yellow mucus and grey pus. Complains of pain in left side. Appetite pretty good. There is an inflamed tumor, as large as a small orange, on the left lower lateral chest, fluctuating and tender. Patient states that he first noticed a little swelling there about the first of March. One day, a short time after the lump was noticed, he had a severe vomiting turn, after taking castor oil. He felt something give way at that spot, and, soon after, coughed up pus in amount so large as to fill both mouth and nose. At various times since, he has raised pus in considerable amount. There is flatness on percussion, both before and behind, below the line of the nipple, and absence of respiration over same area. Above this, there are dulness and râles."

On the 23d, the day after his admission, I made a free incision into the tumor. The wound discharged freely for several hours after the operation. The cavity in the chest was washed out once or twice daily with carbolic acid, and in three or four days he began to complain of tasting the acid at each injection. This patient was almost immediately relieved of the harassing cough. His breathing was easy and his appetite very good. In three weeks from the date of the opening, the discharge had become quite small in quantity and was thinner. He had gained much in flesh and strength.

June 14th.—Patient was allowed to return home, although the wound was not quite closed. It soon, however, became so, and he was able to resume his usual occupation, which was that of a pedler. He has continued in good health since that time.

CASE III.—L. P., age four and a half years. A scrofulous child. First saw her Jan. 2, 1874. Was informed that late in the autumn she had scarlatina. My advice was sought on account of a discharge from one ear, and from the nose. I was called again on the 7th, when I found her apparently suffering from an influenza, at that time quite prevalent. She was feverish, and had a loose, hoarse cough. Mucous râles were heard over chest. Two days later, I was summoned in

haste, and found her in a convulsion. The following morning, her pulse was 160. Temperature, 105°. Cough, short and painful. Skin, dry. Nervous twitchings. Physical signs were, râles throughout both lungs, some increased resonance of voice near the base of right lung, with diminished vesicular respiration. This little patient lay for the next four days in a most critical condition. Her breathing was exceedingly rapid, and her pulse so frequent and fluttering that it could rarely be counted. This condition of the pulse led the physician, who was called in consultation, to the opinion that there was pericarditis complicating the pneumonia, which we at that time supposed her to have. She was not raised from the pillow, and no attempt was made to auscult the chest. Dulness on percussion was quite well marked under right arm, as she lay in bed. Her death seemed imminent from day to day, and at times from hour to hour. She was kept upon what is known as the supporting treatment, and warm, stimulating fomentations were applied to front and right side of chest, and then covered with rubber tissue. I held firmly to the opinion that the somewhat peculiar condition of the pulse was but the index of the severity of the disease, and the expression of its effect upon the nervous system. I was, however, persuaded to try the effect of digitalis, and the third day after the convulsion I began to give three drops of the tincture every four hours, but continued, also, the carbonate of ammonia, which she was previously taking. I watched her closely, and gave the digitalis for three days, but without any improvement in the condition of the pulse. The temperature fluctuated very much, from 100° to 106°. I now discontinued the digitalis, increased the amount of stimulants, and gave one grain of quinine every six hours. The following morning, the pulse was regular at 160, and the general appearance correspondingly improved. This improvement continued for the next two or three days; the cough became fuller and looser. By the eighth and ninth day, she seemed to cough up a good deal of matter, and to swallow it as young children do. I supposed everything to be going on well. She was exceedingly irritable and nervous, so much so that it was difficult to feel of her pulse, and no attempt was made to examine her lungs. She slowly gained in strength, but had exacerbations of fever, and profuse sweating. This led me to suspect that resolution was not going on as it should in simple pneumonia, and on the twelfth day from the convulsion which ushered in the attack, I requested the mother to take the child from the crib into her lap, which had not been done during her illness, and I then examined her chest. I found complete flatness on percussion over right lung from the base nearly to the apex, absence of respiration, bronchophony over middle and upper lobes. Here was, evidently, an accumulation of fluid. I continued the tonics and stimulants, but she ceased to gain in strength. Her fever turns increased, followed by profuse perspiration. The pleuritic exudations increased, the ribs bulged out, intercostal spaces were obliterated, and the flatness extended to the clavicle. I decided, first, to remove the fluid by the aspirator, although expecting to find pus. This operation was performed Feb. 1st, on the 22d day of the illness. The child was very feeble, and in a very nervous and excitable state, and I feared so much that the fright and pain might produce an unfavorable effect, that I thought it wiser to administer chloroform. Dr. Gage, who assisted

me, concurred in this opinion, and the patient inhaled a little chloroform without any resistance, and was kept lightly under it during the whole operation. More than a quart of pus was drawn out. No paroxysm of coughing, or difficulty of breathing was induced, and the patient slept quietly for half an hour afterwards. The relief was immediate; the temperature fell, the cough lessened and the appetite improved. She ate raw scraped beef, and drank milk punch and broths freely.

This improvement continued for only four or five days, and at the end of a week after the tapping, I decided to make a free opening, which I did, with the assistance of Dr. Leonard Wheeler. The patient was again chloroformed, and an incision made in the fifth intercostal space, between the mammary and axillary lines. Fully a quart of thick pus flowed out at once. I dressed the wound in the usual way. The little girl slept a short time, and then awoke, unconscious of what had been done, complaining only of some soreness of the left side. I washed out the pleural cavity daily with a solution of carbolic acid and glycerine. It was prepared each day, in the following manner. I put a large teaspoonful of liquid carbolic acid and about an ounce of glycerine into a pint of blood-warm water, mixing them thoroughly with a syringe. I introduced a No. 6 gum-elastic catheter between the ribs and injected through this, the fluid flowing out again at each side of it.

On the fifth day after the operation, I made the following record: temperature 100°, pulse 130, countenance brighter, cough less, breathing easy, appetite voracious, eats raw meat with avidity and drinks large quantities of milk punch, egg-nogg and broths.

From this time recovery went on steadily. The daily discharge of thick pus was large in quantity and diminished slowly. Four weeks later, as the discharge was still abundant, I began to use a solution of iodide of potassium with tincture of iodine in place of carbolic acid. After making this change, the discharge diminished more rapidly for the next ten days and the opening became smaller, so that it was more difficult to crowd in the plug of lint as I had done. I therefore took a piece of rubber tubing about the size of a pipe stem and two inches long, and with a needle drew a piece of double linen thread through the edges of one end of it, tying the ends of thread so as to form two loops. This tube I inserted in the opening and fastened the loops of thread upon the outside of the chest with strips of adhesive plaster. This prevented the tube from being displaced. I washed out the cavity every day by passing a very small elastic catheter by the side of the tube into the chest and injected through this, the fluid returning readily through the tube.

I removed the linen plug which I had placed in the end of the tube only once a day. Scarcely any discharge escaped from the wound, so that the side was kept clean and dry. On the 1st day of April, nearly eight weeks from the time of the operation, the discharge having become clear, I removed the tube. The wound closed at once and there was no further discharge. The child was able to sit up for an hour or two, but it was two or three weeks before she was strong enough to walk. At this date, May 26th, she is well. There is but little contraction of the side, and vesicular respiration is audible throughout the right lung.

REMARKS.—This was undoubtedly a case of suppurative pleuritis, following scarlatina. It was better in this case to make the opening in front. If it had been made in the back the patient could hardly have borne the fatigue of the daily syringing. Chloroform was used in preference to ether on account of its great ease in administration, and for the reason that it is not attended with the same risk of syncope in children as in adults.

CASE IV.—L. E., a little girl aged 3 years, 4 months. First saw her June 12, 1874. Was told that she had been poorly for several weeks, the result of a bad cold. Had lost flesh and had a constant cough. I found pulse 128, temperature 101°. Short, dry cough. Physical signs were dulness on percussion over lower part of right lung, absence of vesicular respiration and bronchophony.

The effusion slowly increased. Profuse sweating came on and shortness of breath. By Feb. 1st, the right side of chest was well filled. On the 6th, an attempt was made to draw off the fluid. A small amount of chloroform was administered by Dr. Leonard Wheeler, who assisted me, and the puncture was made in front with the small trocar of the aspirator. Only an ounce or so of thick pus was removed. The stitch of the canula was passed in for the purpose of removing any obstruction, if such existed. The canula was moved in and out and in different directions, but no more pus could be obtained. I felt confident that a large amount of purulent matter must be in the chest, but I decided to desist from further efforts to remove it at that time. The child gained in strength for a week or more, and improved so much in appearance that I was at a loss to account for it. On the first day of March, assisted by Dr. Peabody, I made an opening in front, as in preceding cases, and about a pint of thick pus was removed. Semi-solid masses of matter obstructed the opening, now and then, which I drew out with dressing forceps. I found on the following morning that there had been but little discharge, and that the inner orifice was stopped by a piece of this coagulated matter. Upon removing this, liquid pus gushed out in large quantities, more than on the preceding day. No shock to the system resulted from the operation, and all the indications were favorable. The same local and general treatment was pursued as in the previous cases. The appetite soon became voracious, the child eating greedily almost anything that was given to her, and drinking freely of lager beer and wine. She gained steadily in strength and the discharge diminished in quantity. At the end of three weeks she was able to sit up an hour at a time, and I considered her quite safe. She was at no time so reduced in strength as the other little girl whose case I have just related, and I considered her case more promising from the beginning. On the 25th, the child was feverish, and upon removing the dressing I found the skin around the opening to be inflamed and to have a red appearance like erysipelas. In the evening, I found the redness to be extending in irregular outline inwards and downwards. I surrounded it with a line of tincture of iodine, but in the morning the inflammation had crossed the line of iodine paint and appeared in bright red patches over the liver and reaching nearly to the pit of the stomach. The edges of the wound were gangrenous and the discharge thin and offensive. Pulse very feeble and countenance pinched. Was unwilling to take nourishment or stimulants and had slight vomiting. On the morning of the 27th,

I found her bowels swollen and tender, and vomiting more urgent. Had retained no nourishment during the night. On the afternoon of this day, being the fourth of the attack, she suddenly died in an attempt to vomit.

The cause of this erysipelatous inflammation, and the reason for its rapid progress and for the sudden death of the patient, are questions which I cannot answer satisfactorily to myself.

CASE V.—Mrs. H., aged 28, mother of several children. First called to her April 12, 1874. Found her sitting up and was told that, about two months before, she had a stitch in her side, was feverish, with some cough, and it hurt her to draw a long breath. Kept about the house all the time, but had had cough ever since, and at times pain in right side. At this time she had some fever, a troublesome, dry cough and loss of appetite. Physical signs were flatness on percussion over lower half of right chest and absence of respiration over corresponding area. The usual treatment of blistering, diuretics and alteratives was pursued, and at the end of twelve days, finding that the effusion had somewhat increased in quantity, I thought it better to attempt the removal of the fluid by the aspirator. This was done on the 24th of April, and a quart of straw colored serum was drawn off through the smallest sized trocar. The fluid was darker and thicker than is usual. The patient was relieved in a measure. Cough diminished and appetite improved for about a week. Then more fever and profuse perspiration came on, accompanied by loss of appetite and strength. Percussion indicated a re-accumulation of fluid in right side of chest and the flatness extended higher up. Patient complained of a suffocating sensation, and therefore on the 6th of May, twelve days from the first tapping, I repeated the operation and obtained more than a quart of thin, purulent fluid. The patient breathed more easily, but the fever did not abate, and the cough and profuse sweating continued the same.

Being satisfied that the exudation was rapidly increasing, I decided to make a permanent opening, which was done on the 10th of May, with the assistance of Drs. Wheeler and Marble. This patient was confined mostly to her bed, but was able to sit up for a short time. Therefore I made the opening in the back about two inches below the angle of the scapula and a little towards the side. Three pints of purulent fluid were discharged. The pleural sac must have been very thoroughly evacuated, as the patient coughed a great deal at the time, which always serves to force the matter out. The subsequent treatment was substantially the same as in the preceding cases. Patient was able in two weeks to sit up for two or three hours at a time. There was no fœtor to the discharge and it steadily diminished in quantity. Three weeks after the operation, the wound having healed from the corners and the opening being much contracted, I inserted two rubber tubes, which served the purpose of a double canula. This arrangement has given such entire satisfaction in this case that I shall feel disposed to try it again in preference to the T shaped wire device, described by Dr. Oliver in this JOURNAL,* or to any other contrivance that I have heard of. I obtained a piece of rubber tubing, the size ordinarily used for nursing bottles, and cut from

* Vol. xc. page 421, April 20, 1874.

it two pieces about two inches in length. I passed these in, between the ribs, side by side. Through the outer end of both, on the upper side, I passed a needle, armed with strong linen thread, and left at each end a loop five or six inches long. One of these I carried backward and the other forward, and fastened both down with adhesive plaster. In this way the tubes have been kept firmly in place for ten days. The ends are stopped with small pine pegs, which are removed two or three times daily for the purpose of washing out the pleural sac. This is done with a syringe having a tapering nozzle, which fits into one of the tubes. The injected fluid readily returns through the other tube, washing out the pus. There has been no disagreeable odor from the rubber or from the wound. The patient sits up and walks about the house and convalescence has progressed rapidly. Her husband has been able to syringe out the pleural sac for the last week. The discharge is now very small in quantity, and I presume it will be safe in a week or two to remove the tubes.*

The history of this case serves to indicate what rapid recoveries may be expected in the more favorable cases of empyema. The number of empyemic patients treated in this country after the plan I have endeavored to illustrate, has been too few to enable me to give any statistics of results from which to draw positive conclusions.

The four cases published by Dr. Blake, together with the five that I have reported, make in all nine, eight of which recovered and one died, and that one from an accidental or secondary affection. These few cases, however, serve to confirm the testimony of German surgeons as to the brilliant success that has attended this operation.

A CORRESPONDENT of the *Irish Hospital Gazette* gives an account of an operation performed by Dr. Billroth, of Vienna, for the removal of a tumor from the bladder of a boy twelve years of age. The child had complained of pain in passing water for ten months. The urine was cloudy and contained some mucus and pus. The sound passed readily into the bladder and detected a rough surface, but no calculus. A tumor in the region of the bladder could be distinctly felt through the abdominal walls. It was slightly painful on pressure. It could also be felt upon examination per rectum; its consistence was very much that of a fibroma, and it seemed to spring from the bladder. The walls of the bladder were apparently hypertrophied. As there might be a calculus in a diverticulum of the mucous lining of the bladder, Billroth determined to perform lateral lithotomy, and then, if his supposition was confirmed, and the tumor was adherent to the bladder, to perform the high operation and remove the growth. This was accordingly done, and it was found that the tumor grew from a short and tolerably broad pedicle from the posterior wall of the bladder, and very high up. Although a large opening in the upper wound was made, the tumor was too large to be removed through it, and portions were broken off before the mass of the tumor could be torn from the pedicle and removed. The pedicle was dissected out from the wall by incisions which penetrated nearly to the peritoneum. Drainage tubes were left in both wounds, and the patient has done well since the operation, although the time is not specified. The tumor proved to be a pure myoma.

* The patient has since entirely recovered.

Clinical Lecture.

OVARIAN CYST.

BY CALVIN ELLIS, M.D.,

Professor of Clinical Medicine in Harvard Medical School; Visiting Physician to the Massachusetts General Hospital.

THE patient, an Irish widow, 61 years of age, entered the hospital on Oct. 21st, 1873. She has had nine children, the last having been born eighteen years ago. The labors have been natural, and have not been followed by any bad consequences.

She was always healthy till last winter, when she had a discharge of "blood and thick matter" from the rectum. This recurred about once a month, until last month, when it ceased and has never returned.

In April, 1873, she noticed an *enlargement* of the lower part and middle portion of the *abdomen*. This gradually extended upwards, as if she were in the family way. For three weeks after the swelling was first noticed, there was *severe pain* in the lower part of the abdomen. She never noticed any swelling of the face or hands. The *appetite* has been pretty good. The *bowels* have been *constipated*. She has had *hæmorrhoids* for many years. *Micturition* and the character of the *urine* have been *normal*. The *catamenia* ceased fourteen years ago, but were previously regular. Pulse 84, normal.

She complains at the present time of *abdominal distention* alone. Our first inquiry must be whether the history furnished will throw light upon the cause.

Though the enlargement followed the cessation of the discharge from the rectum, and as the beginning was accompanied by pain, the subsequent course and present character of the disease do not warrant us in connecting the two.

It is obvious that we must ascertain the *character of the enlargement* before we can settle this question absolutely.

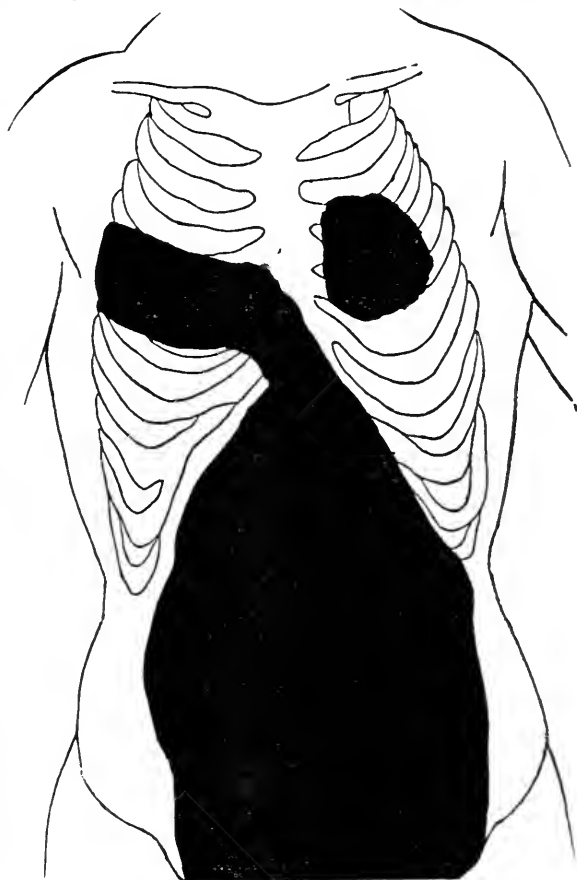
Following the same course of reasoning as in the former cases, we must consider *whether this change of form is caused by some affection of the parietes, or of the contents of the peritoneal cavity*.

The *abdomen* measures forty-two inches in circumference, two inches above the umbilicus, and is *uniformly distended*, but the depending parts are thick and swollen. With the latter exception, the appearances are such as to indicate that the *parietes are distended from within outwards*, and we see that this swollen appearance is caused by *œdema* of the subcutaneous tissue, the parts pitting readily on pressure. We see, also, that there is some *œdema of the lower extremities*. This infiltration of the subcutaneous connective tissue with serum is often an indication of some disturbance of the circulation, or of renal disease, and we do not overlook the possibility of such existing, but we must not be diverted from the examination of the abdomen to consider other parts, as we may find here a sufficient explanation of these superficial changes, and can examine other organs at a later period, if necessary.

On *deep pressure* of the abdomen, marked inequalities of resistance are noticed, the least being just above the umbilicus, the greatest in the left hypochondrium. Still, there is no definite outline, and we can

arrive at no precise conclusion in regard to the nature of the contents. We must, therefore, resort to *percussion*.

You notice that the whole abdomen, with the exception of the outer and posterior lumbar regions, is perfectly flat on *percussion*, and that the line limiting this flatness curves inward towards the upper part, as if a rounded body had risen from the pelvic region upwards. You also notice that the resonance of the right lumbar region continues upwards and embraces the hepatic region, while the flatness which usually characterizes the latter is transferred to and occupies only the space comprised between the upper border of the 4th and 6th ribs.



As the ordinary seat of the liver is occupied by the intestines, and that of the lower part of the right lung by some non-resonant matter, the question which at once presents itself is, *whether the liver has been pushed upward, or whether the pleural cavity or the lung is the seat of some disease.* The normal character of the pulmonary resonance and respiration as low on the line which marks the flatness, and the absence of all respiratory sound below, show that the lung itself is intact, as it is very exceptional to have both respiration and resonance normal to the very line which marks the change of density when the disease involves the pulmonary tissue.

Behind, we have resonance, showing the presence of the intestines as high as the last rib only, and from this point the flatness extends upward, scarcely above that which belongs to the liver when in its usual seat. Moreover, nothing whatever is heard on auscultation over the flat region, and its outline does not change on change of position. We have, therefore, reason to believe that the flatness is that of a solid body. Though narrower vertically in front than usual, the form is that

of the liver, as is the flat region behind, and we have only to suppose that the organ is rotated upon its horizontal axis by the upward pressure of the abdominal tumor and intestines to explain the variation of form and position described.

On examining the *left side of the chest*, we find an *isolated rounded dull region*, extending from the upper edge of the third rib to the lower edge of the fifth, surrounded by pulmonary or stomachic resonance. This has the form of the normal cardiac dullness, and the sounds and impulse of the heart are distinctly heard here. It is apparent that we have a *large abdominal tumor*, which has pushed aside all the organs interfering with its development.

It is now our task to ascertain, if possible, the *nature of this tumor*. The compressibility and elasticity are so marked that we at once suspect a fluid, but we can detect no fluctuation. This, however, is not a sufficient reason for denying that the enlargement is owing to the formation of fluid. Certain growths, such as ovarian cysts, though containing a large amount of fluid, may be so subdivided, and may vary so much in different parts, as to prevent that movement necessary for the production of this easily recognized sign. We have already spoken of the unequal resistance of different parts of the tumor, and may properly infer that this is connected with such a want of homogeneity as would make fluctuation very doubtful.

Assuming, then, that the liniform outline of the mass indicates a rounded tumor, and that the consistence is such as to show that this is a *sac or an aggregation of sacs*, we must consider what kind of cystic tumors may arise in the lower part of the abdominal cavity. The impregnated uterus might assume such a form, but the age of the patient at once disposes of such a supposition. Fibroid or fibro-cystic growths may originate in the uterus and attain considerable size, but it is very improbable that such would become as large as this tumor, and still more improbable that cysts of the Fallopian tubes or of the uterine appendages would attain such a size. These latter are also much more rare. With the doubt which still clouds our decision, a vaginal examination may be of service. Nothing remarkable is noticed; the uterus is movable and in its usual position; the sound enters the cavity about the usual distance.

Taking into consideration, therefore, the size of the tumor, its situation, its peculiarities and the relative frequency of certain forms of disease, we have, in all probability, *an ovarian cyst*.

The character of the disease and the absence of any special indications of ascites, make it improbable that the œdema of the abdominal walls and of the lower extremities has any other cause than the tumor itself, as the circulation might be interfered with very easily, and such œdema is at times noticed in ovarian diseases. This view is confirmed by the fact that the heart is normal, there have been no indications of disease of the liver, and the urine shows that the kidneys are healthy.

Varicose veins are too common to allow any conclusion to be drawn from their presence, unless it be based upon more significant signs.

Treatment.—As the patient declines any operative treatment, we cannot confirm our diagnosis or give any relief, as far as the disease is concerned, but we can relieve the constipation, and, by good care and nourishment, enable the patient to bear her infirmity somewhat longer.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By W. L. RICHARDSON, M.D.

OBSTETRICS.

Chloral as an Anæsthetic during Labor.—Dr. Playfair, recognizing the fact that the administration of chloroform during labor is apt to diminish the pains and thus prolong the labor, has, during the last two years, used chloral as a substitute, and with the very best results. He claims for it (*Lancet*, Feb. 21, 1874) that its administration does not in the slightest degree alter the character of the pains, while it does materially lessen the sufferings of the patient. It is rare that chloroform is given until the first stage of labor is fairly concluded, lest its administration should interfere with the progress of the labor. Chloral, however, can be given towards the close of the first stage, and when the sharp cutting pains are so severe as to not unfrequently completely weary and exhaust the patient by hours of almost fruitless suffering. His method of administering the drug is as follows:—A six-ounce mixture, containing a drachm and a half of chloral, is ordered. One-sixth of the mixture (fifteen grains of chloral) is given when the pains become severe. This is repeated in twenty minutes. The patient is usually by that time sufficiently under the influence of the remedy. Its further use must be regulated by the condition of the patient. When it is found necessary to repeat the chloral, half the quantity will usually be found sufficient. Dr. Playfair has never found it necessary to give more than a drachm of the chloral during the whole labor. The use of this remedy does not predispose to *post-partum* hæmorrhage, as is the case with chloroform. The use of chloral in cases of rigidity and spasm of the cervix uteri, has been followed by a marked and speedy relaxation of the tissues.

Diagnosis of Pregnancy.—Dr. Rasch calls attention (*British Medical Journal*, Aug. 30, 1873) to a new method of detecting pregnancy, especially during the first three months. By making a vaginal examination with the fingers it is easy to detect fluctuation in the pregnant uterus. He has himself made out a diagnosis of pregnancy as early as the seventh week, and experiences no difficulty whatever in making it out after the second month. The uterus must be steadied by a hand grasping it through the abdominal walls, while two fingers introduced into the vagina manipulate the uterus. As a rule, the uterus will be found to be anteverted, a position which renders bimanual manipulation all the easier. The fluctuation is best detected at the fundus. Dr. Rarch thinks, also, that sufficient attention has not been paid to the increased desire to pass urine, especially at night, which is not unfrequently one of the earliest symptoms of pregnancy.

Spontaneous Salivation Associated with Pregnancy.—Dr. Archer Farr reports (*Trans. Obstet. Soc. Lond.* xv. 1874) a case in which a lady, the mother of four children, began to salivate profusely when about two months pregnant. The flow of saliva was very great, equalling in quantity, according to her own statement, three pints per diem. The tongue was clean. She complained of pain, and of occasional vomiting

after taking food. The salivation continued, unrelieved by medical treatment, up to close upon the point of her quickening. She was then greatly reduced in strength, and emaciated. The question of inducing premature delivery was discussed. Immediately on feeling the foetal movements, however, she experienced complete relief. All the dyspeptic symptoms ceased, the appetite returned, and the salivary function became rapidly restored.

Prolapse of the Umbilical Cord.—In an article on this subject (*Amer. Jour. Obstet.*, Nov., 1873; Feb. and Aug., 1874), Dr. Engelmann, of St. Louis, gives his conclusions as to the causes and treatment of this dystocia as drawn from a careful examination of a large number of cases (365) occurring either in the Royal Lying-in Hospital of the University of Berlin, or in the out-door department of that institution. Of these cases, 160 were observed very carefully from the beginning to the end, and pelvic measurements made. The frequency of prolapse was found to be 1 in 18 cases of labor. In this country, the frequency would be much less, since here diseases tending to produce a deformity of the pelvis do not abound as in Germany, where these observations were made. A prolapse of the funis rarely complicates vertex presentations, but is frequently found with face presentations, as the result, however, not of the foetal position, but of the pelvic deformity, which tends to produce both the abnormal position and the prolapse. Breech presentations are rarely complicated with prolapse, transverse and shoulder presentation are much more commonly, and foot presentations oftener than any other. The position of the placenta near to the os favors the prolapse of the cord. The unusual length of the cord is probably favorable to the occurrence of prolapse, but cannot be ranked among the causes. The premature rupture of the membranes at an early period of labor is one of the most common causes which tend to favor a prolapse. The chief and primary causes, however, are due to the maternal parts. While a flabby condition of the uterus and a general weakening of its muscular power, as the result of too frequent child-bearing, may tend to produce a prolapse, still the chief cause is undoubtedly to be found in a contraction of the pelvis. The flattened pelvis is the most common pelvic malformation found in these cases. Prolapse is somewhat more frequent among multiparæ than among primiparæ. It is rare that the cord prolapses *after* the rupture of the membranes; ordinarily, the accident occurs at the time of the rupture, although, occasionally, the cord may be felt presenting just within the still unbroken membranes. The prolapse usually occurs at the sacro-iliac fossa, less frequently in the acetabular region. Very rarely is it found to pass down in any region occupied by the occiput, or directly behind the symphysis pubis. The danger to the child comes, of course, from the pressure to which the cord is subjected during the labor, a pressure which is greater in head presentations than when any other part of the child presents. A careful *post-mortem* examination of children, whose death has been caused *inter-partum* by compression of the prolapsed cord, shows no change which could be called pathognomonic. The death is the result of asphyxia, which may occur from many other causes. The prognosis in these cases is most favorable when the feet present. Next come transverse and shoulder presentations, although these are far more dangerous than the first mentioned class of cases, and most dangerous of all are vertex presentations. The prognosis in

breech-presentations is at least equally favorable with that offered by transverse and shoulder-presentations. In a primipara, the prognosis is much less favorable than in a multipara. The life of the mother is, of course, not affected by the prolapse of the cord. It is possible, however, for a serious hæmorrhage to follow the premature loosening of the placenta in those cases where the cord is drawn over the head.

As regards treatment, many cases will occur in which it will not be desirable to leave the progress of the case to nature, nor will it be necessary to perform an operation. In these cases, attention must be given to the position of the mother during labor. She should lie on the side opposite that in which the funis has prolapsed. In cases where the prolapse has taken place in one or the other of the sacro-iliac fossæ, the simply placing the mother on her hands and knees may be all that is necessary for the self-adjustment of the cord. Oftentimes, however, this postural treatment is more an adjuvant to other methods of treatment than a method on which we should place our sole reliance. Version offers the best chance for the child, and should be adopted in preference to either reposition or delivery by forceps. Chloroform has proved a valuable adjuvant in any attempt to effect a reposition of the cord, and should be given so as to cause a complete relaxation of the muscular fibres. Reposition of the cord should be confined, with few exceptions, to cases of prolapse occurring with a head presentation.

Puerperal Convulsions.—In a paper recently read before the Dublin Obstetrical Society (*Dub. Jour. Med. Sci.*, June, 1874), Dr. T. M. Madden discussed the causation, preventive treatment and active treatment of convulsions, which he considered among the most dangerous, as well as the least frequent, of the complications of labor. The writer, after alluding to the various conflicting opinions which have been held by medical men as to the causation of puerperal convulsions, states that he is persuaded that a variety of circumstances have a share in the causation of these convulsions, and that all these various circumstances must be considered of equal account. The disease is connected not only with the state of the uterus itself, but also with that remarkable condition of nervous susceptibility which is peculiar to pregnancy. The cerebro-spinal nervous centres are usually more or less congested, and are irritated by the circulation, through their vessels, of a vitiated blood, containing some non-eliminated *materies morbi* which produces a direct toxic effect on the excito-motor nerve substance of the brain and medulla oblongata, and which stimulates the hyperæsthetic condition just referred to till the latent excitability becomes so intense as to need only the addition of uterine irritation, such as the first pains of labor, to cause those violent reflex muscular spasms, known as puerperal convulsions. It is a remarkable fact that puerperal convulsions generally attack a number of individuals simultaneously, a fact which may be due to some peculiar electrical condition of the atmosphere. Plural births are more frequently complicated with convulsions than are single ones, and first-births than subsequent ones. The presentation is usually natural. If eclampsia occurs toward the end of pregnancy, labor usually follows. If it occurs after labor has begun, the delivery is usually accelerated. Mental impressions, anxiety of mind, sudden shocks, depression of spirits, &c. are all conducive to eclampsia. The classification of puerperal convulsions as hysterical, epileptic and apoplectic may be entirely disregarded. They are a convulsive affec-

tion *sui generis*, peculiar to women who are or have recently been pregnant. Among the premonitory symptoms may be mentioned œdema of the upper extremities, face and eyelids, pain in the lumbar region, and albuminuria. Headache, giddiness, confusion of thought, or a peculiar irritability of temper usually precedes, for a few days, the attack.

The asthenic, or the so-called epileptiform puerperal convulsion, usually commences with a twitching of the muscles of the eyelids and eyeballs, and soon extends to the whole body, the convulsive action being, however, more marked on one side than on the other. In the majority of cases, the patient's state, during the commencement of the attack, is that of vascular depression, rather than of vascular excitement; as the convulsions recur more frequently, the impeded respiration, and consequent non-aëration of the blood, induces symptoms of venous congestion. Thus the disease passes into the stenic or apoplectiform convulsion. In plethoric women, the disease generally presents *ab initio* the apoplectiform character. The face is congested, respiration stertorous, pulse slow and full, limbs placid, and external stimulation produces no reflex action. Gradually, the convulsions cease, and the patient slowly recovers consciousness, or coma becomes more profound, and a violent convulsion closes the scene.

As regards treatment, the peculiar condition of each patient must be considered. Our object, as regards a prophylactic treatment, should be, first, to relieve the kidneys, which is best accomplished by cupping and fomentations over the loins, the free use of diluents, the cautious administration of mild diuretics, and especially of colchicum in small and guarded doses; secondly, to assist nature in her efforts to purify the blood by the use of saline aperients and diaphoretics; thirdly, to soothe the nervous irritability of the patient by the use of sedatives, especially bromide of potash and belladonna.

The indications for the treatment of a case of puerperal eclampsia are—first, to arrest the convulsive action; secondly, to remove the cause of its recurrence.

In all cases, the *primæ viæ* should be unloaded by the administration of calomel and jalap, or by a drop of croton oil. Enemata of assafoetida and turpentine may be used. The head should be shaved if possible, and the back of the scalp freely painted with linimentum cantharidis. A bladder of ice should be laid on the front of the head, and the feet and calves of the legs be enveloped in mustard poultices. In the sthenic form of eclampsia, a cold effusion on the head and face may be employed. Chloroform will be found of great use in many cases. In cases of sthenic puerperal convulsions, the only remedy of undoubted efficacy is venesection. As a rule, however, bleeding should not be resorted to if the pupils are dilated. In all cases where there is a tendency to apoplectiform symptoms, opium is contra-indicated. In every case of convulsion during labor, the delivery of the patient should be at once effected.

M. Fauny has recently published a valuable series of observations on the use of Hydrate of Chloral in Puerperal Convulsions. He claims (*Révue des Sciences Médicales*, 7, 1874) that the use of chloral is followed by better results than are seen after the administration of any other remedy. He advises its use not only when an attack has actually taken place, but in all cases where such an attack is feared.

Dr. Charrier has also reported (*Annales de Gynécologie*, January, 1874) very favorably on the use of this remedy in cases of puerperal eclampsia.

Twin-Pregnancy after Ovariectomy.—Prof. F. Marzolo (*Gazette Médicale de Paris*, 44, 1873) performed, July, 1871, ovariectomy on a woman aged 34. The patient recovered, and about a year afterwards became pregnant. Gestation went on to a normal termination, and she was delivered of twins, the first a girl (head presentation) born after a short labor of only two hours, the second a boy (footling).

Twin-Pregnancy in a Double Uterus.—Dr. Perrault reports (*Lyon Médicale*, August 31, 1873) a case in which a woman, aged 20, was delivered, by means of version and the forceps, of a fœtus. On introducing the hand to remove the placenta, an opening in the fundus uteri was discovered. A second cervix uteri was found opening through this aperture into a superimposed uterus. Through this, a second child was presenting by the shoulder. Version was performed, and a child, weighing 9½ pounds, removed. The woman died of puerperal fever, and no autopsy was allowed.

(To be concluded.)

RABIES MEPHITICA.—Rev. Horace C. Hovey, of Kansas City, Mo., writes to the *American Journal of Science and Arts* concerning a fatal disease which is communicated by the bite of the skunk, and which bears certain resemblances to hydrophobia. The rabid skunk seems to have exhausted his mephitic battery, or else has lost the projectile force by which it is discharged. Perhaps the secretion has been checked by the feverish state of the system; or there may be a causative connection between the inactivity of the anal glands and the generation of malignant virus in the glands of the mouth.

The writer having had his attention called to the disease by an encounter with a skunk, and by the statement of an experienced hunter that the bite of the animal is invariably fatal, opened a correspondence with hunters, taxidermists, surgeons and others, and obtained the particulars of forty-one cases of *rabies mephitica*, occurring in the Western and Southern States. All were fatal except one. Drs. Janeway and Shearer, Surgeons U. S. Army, reported several cases which resulted fatally from the bite of the skunk. Dr. Shearer wrote that he regarded the virus as peculiar to the skunk as the venom of the rattlesnake is to that creature, and not an occasional outbreak as in the case of the wolf or the *rabies canina*. From this opinion, however, Mr. Hovey dissents.

The attack of the rabid skunk is entirely different from the fierce assault of a mad dog. He approaches stealthily while his victim is asleep, and inflicts a deadly wound on some minor member—the thumb, the little finger, the lobe of the ear, one of the ale of the nose.

The resulting disease resembles hydrophobia more than it does the effects of ophidian venom. The period of incubation is alike in *R. canina* and *R. mephitica*. It is indefinite, ranging from ten days to twelve months. During the incubative stage, no perceptible change takes place in the circulation.

The spasms of the larynx and œsophagus which occur in *R. canina* are wanting in *R. mephitica*. Nor is the hyperæsthesia of the skin, which is so marked in the former disease, present in the latter. In hydrophobia, the perceptions are intensified, but in mephitic rabies there is a positive loss of perception and volition.

The mode of death is by anæsthesia in both forms of rabies: but in that of the dog the frightful struggles of nature to eliminate the poison are more prolonged than in that of the skunk.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 20, 1874.

AMONG the difficult problems which a rapidly growing community is called upon to solve, there is not one which is more pressingly or promptly brought to the notice of those who bear the responsibilities of government than the necessity for increased vigilance in all matters pertaining to the department of public health. A disregard of this important element in the successful administration of the affairs of a large city is so surely followed, sooner or later, by a striking illustration of the danger of neglecting sanitary laws, that a reform becomes an absolute necessity, and thus a requisite standard is eventually reached, only after experiences of a most distressing nature, entailing much suffering, and seriously endangering the welfare of the community. It is an old and oft-told tale, but, nevertheless, one which, apparently, nothing short of bitter experience enables even an educated and civilized people to profit by. Such, at all events, has been the train of circumstances which has terminated in the organization of a Board of Health adapted to the present needs of our own city.

It is with no small interest, therefore, that we turn to the second annual report of this body, giving, as it does, the record of its first full year of service.

The report opens with an allusion to the smallpox epidemic, the signal success with which this was handled by the Board being more fully treated in the former report; a table is, however, annexed, showing, in the most striking manner, the rapidity with which this terrible disease was overcome. Since the last report, there have been a few cases of smallpox, never more than two, and since March last the city has been absolutely free from the disease. Another field of usefulness which has not been neglected by the Board is the abatement of nuisances similar to the one on the now notorious Miller's River. The rendering establishment on Spectacle Island has been forced to introduce reforms into its manner of carrying on the business, which, although not fully in accordance with the improvements suggested by the Board, will doubtless make a marked change in the character of the effluvia emanating from that establishment. Those who have been obliged to remain in town through the present summer cannot be too grateful to the State and City Boards of Health for the marked contrast in the character of the air pervading the city. It is not to be supposed, however, that all sources of foul odors have been suppressed. Take, for example, the following statement, which ought to arouse the

serious attention of the wealthy inhabitants in the "Back Bay" lands, and induce them to demand a reform which, indeed, has been asked for during many years past, but does not seem to be forthcoming. "At low tide, there are, at least, one hundred acres of flats exposed and bare west of Parker Street, east from Brookline Avenue and south from Beacon Street. And what passes through this sewer? One half of the sewerage of the Highlands." This is but one instance of many cited in the report, which, further on, states: "our beautiful city is almost encircled by the mouths of sewers discharging their contents into shoal water or upon flats, the sewer gases rendering the atmosphere for some distance about the wharves absolutely dangerous to breathe." How often has this fact been pointed out, and the suggestion added that the immediate investigation of experienced engineers is required, and yet no movement that we are aware of has ever been made towards a radical change in the sewerage of the city. We hope the Board will press this matter firmly and persistently until something is done. In this connection comes up, also, the question of the removal of night soil. We have already called attention to the fact that the present method has been abandoned in many cities and a process substituted by which vaults may be emptied at any time of the day or season without offence. The responsibility for the continuance of the present offensive and antiquated method rests, we understand, entirely with the contractors.

Some sensible suggestions are offered on the subject of street sweeping and cleaning. This, although apparently a small matter, when compared with the more evident and serious questions of reform mentioned above, is, nevertheless, of far greater importance than many persons realize, who are in the habit of swallowing clouds of dust, mixed with every sort of impurity, and jolting, as a matter of course, over badly kept roads. We suggest this as a field for work in which the Board has a great opportunity to distinguish itself, and of earning the gratitude of thousands who now do not even know what a properly kept street really is. It is one of those "solid comforts" which old England is wont to brag about, but which we in this country too frequently neglect in favor of what is more showy and attractive to an ignorant public.

The subject of infant mortality is next touched upon. The gravity of this question renders it desirable that it should be thoroughly investigated by those most competent to undertake the task. We should be glad to see this matter discussed rather more from a medical point of view than it has been in the report.

Perhaps one of the most striking and interesting, as well as instructive, features of the report, are the charts accompanying the short chapter on Vital Statistics. The simple expedient has here been resorted to of employing different colors to fill out the squares of the

table, each color representing a different form of epidemic or disease. With these tables, one can see at a glance the ravages made by typhoid fever, consumption, cholera infantum, &c., during the year, without troubling oneself to study out a complicated explanation.

The chart illustrating the actual daily mortality for the whole year, with the meteorological observations for the same period, is a marvel of simplicity and ingenuity. Such a record, preserved through a series of years, cannot fail to be productive of interesting results.

Accompanying the report, are interesting papers by Dr. W. L. Richardson and Dr. F. W. Draper, and a series of chemical analyses of articles liable to adulteration, by J. M. Merrick, B.Sc.

Dr. Richardson has devoted himself to the study of tenement houses, an important subject, inasmuch as over one fifth of the population of Boston are housed in this way. The thorough manner in which he handles this subject is made apparent from the interesting details given in his article, and we cordially commend it to the perusal of owners of real estate in parts of the city where tenement houses abound. The reader is strongly impressed with the importance of great care in the construction of vaults, drains and cesspools; a diagram showing an improved method of constructing the latter is annexed, although the writer thinks it is doubtful whether cesspools should be allowed at all in large cities. An important element in the construction of drains and cesspools is the ventilation of the same, which is strongly insisted upon. Dr. Richardson calls attention to the excellent work done by the Boston Coöperative Building Company in building houses of this class. The same experiment has been carried out with perfect success, by Miss Octavia Hill, in England, who has not only redeemed large sections of crowded cities, but has received a very profitable income from the money invested in her charitable enterprises.

Dr. Draper, in his article on the registration of mortality in Boston, points out the various sources of error in the registry of death under the system which has for the last thirty years been in vogue in this city. Among the most important of these is "the carelessness or indifference of physicians, who certify causes without proper discrimination." The office of registrar should be subordinate to the health commission; moreover, the registration officer should be a medical man. A stimulus would thus be given to the profession to be more careful in their returns, and much valuable work might at the same time be accomplished in what has been shown by many eminent men to be an interesting field for medical research. We have already urged a reform in this department in our pages, and we are glad to see the question dealt with by one well qualified to appreciate its importance.

It will be seen that the Board has been alive to the importance of the work entrusted to their charge. The benefits to be derived from

such an intelligent administration of our sanitary department are incalculably great, and both the Board and the city are to be congratulated upon the successful working of the new organization.

From a literary point of view, it might be said of the general report of the Board that it does not partake of that simplicity of style that one would prefer to see in such a document. We note also the absence of an index to the book. We are, however, not disposed to be too critical where such good work has been done otherwise.

A COMMUNICATION, on another page, on the subject of Temperance in Massachusetts, is interesting at the present time in view of a renewal of the contest over the "prohibition" question in the coming autumn political campaign, pointing out as it does some of the expedients resorted to in times past for a solution of this difficult problem. We would particularly commend the perusal of the passages quoted to the ardent supporters of the present State policy in regard to temperance. It may serve to remind them that they may not be the only champions of temperance now in the field; that there are others who have this cause quite as warmly at heart, but who do not feel justified in employing such radical and questionable means of accomplishing their ends.

THE AUTOMATIC MAN.—Under this appellation is given, in the *Gazette Hebdomadaire* of July 17, a curious case which has come under the observation of Dr. Mesnet, of the St. Antoine Hospital. A young man, during the late war, had a portion of the left parietal bone, about eight centimetres in extent, carried away by a ball. Hemiplegia of the right side was the result, but this gradually disappeared. For some time past he has been subject to attacks, lasting from twenty-four to forty-eight hours, attended by very extraordinary phenomena. During these, he seems to act like an automaton, walking continually, incessantly moving his jaw (*machonnant*), knitting his brow, and appearing absolutely insensible to all that surrounds him. Not uttering a word, he walks straight forward, and when he meets with an obstacle stops short, explores it with his hand, and tries to pass on one side of it. Surrounded by a circle of persons, he stops at each and endeavors to pass by the intervals formed by their joined hands, then turns back, comes in contact with the next person and resumes his round. All this time he never manifests the slightest consciousness, just as if he were in a state of somnambulism. He is absolutely insensible to pain, so that pins may be thrust through the cheeks or into the fingers, or very powerful electric shocks may be administered without the slightest sensibility being manifested. What, however, is very remarkable is, that by bringing him into relation with certain objects we are enabled to determine in him the entire series of acts which are correlated with the sensation thus aroused. Thus, if a pen be placed in his hand, he seeks for ink and paper and writes a letter in a good hand, in which he speaks very sensibly about matters that concern him. If a leaf of cigarette paper is placed in his hand, he feels in his pocket for the tobacco, rolls up the cigarette very adroitly, and, having found his match box, lights it. If the match be extinguished just as it reaches the cigarette, he finds another, and that several times, till he is allowed to light his cigarette. If, at the moment when the match is extinguished another already lighted is presented to him in its place, it is impossible to induce him to light his cigarette by the substituted match. He allows his moustache to become burned without offering any resistance, but will not employ the light thus presented to him.

Among the various experiments devised by Dr. Mesnet, there is one which is particularly curious. The young man is a singer at concerts by profession, and if gloves be placed in his hands he immediately puts them on, and searches for paper. When a roll of this resembling music in form is given him, he places himself in the proper position and begins to sing. It would seem, in fact, that tactile sensation induced in him becomes the point of departure, and as if of escape of a series of acts correlated to their initial sensation—acts which he accomplishes automatically, without letting them deviate from their habitual and regular succession. Lastly, it is noted that, while in this singular condition, the patient steals all that comes within his grasp. If he touches any person, he feels for his watch-pocket, and invariably detaches the watch and puts it in his own pocket, from whence it may be removed without his making the slightest opposition. The crisis once over, he has no recollection whatever of what he has been doing, and becomes again perfectly reasonable.

The questions that such a case must give rise to for the reflection of the physician and physiologist are striking. How, indeed, is such a fact to be characterized? And what idea is to be formed concerning the modifications of the functions of the nervous system which it exhibits? A no less interest must be felt by the medical legist, for evidently during these crises such an individual must be absolutely irresponsible. But how, under similar circumstances, are the facts to be ascertained?

What precedes is a mere sketch of some of the features of this curious case. Dr. Mesnet, armed with all the resources derived from a consummate experience in the study of mental diseases, has had it for some time under consideration, and will immediately publish a memoir upon the subject.—*Medical Times and Gazette*, July 25, 1874.

Correspondence.

TEMPERANCE IN MASSACHUSETTS.

MESSRS. EDITORS,—The reproach of intolerance has so often been cast at our sturdy New England ancestors that we have almost come to look upon them as personifications of that unamiable quality. Such denunciations, however, will not always bear the test of investigation, and I wish now—during the temporary lull in the discussion of prohibitory and license laws—to call attention to the moderate, sensible, and eminently wise spirit evinced by our grandfathers and fathers in their efforts to limit the pernicious effects of intemperance.

My first evidence shall be taken from the statutes of the State of Massachusetts, the same volumes whose pages are now bedizened by the vain glories of a futile and irrational prohibitory law.

In the "Laws of the Commonwealth of Massachusetts, Vol. II., Boston, 1789," may be found the following:—

"An Act to encourage the Manufacture and Consumption of Strong-Beer, Ale, and other Malt Liquors.

"Whereas the manufacture of Strong-Beer, Ale and other malt liquors will promote the purposes of husbandry and commerce by encouraging the growth of such materials as are peculiarly congenial to our soil, and climate, and by producing a valuable article of exportation; and whereas the wholesome qualities of malt liquors greatly recommend them to general use, as an important means of preserving the health of the citizens of the Commonwealth, and of preventing the pernicious effects of spirituous liquors:

"Be it therefore enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, that all Brew-houses wherein shall be made and produced for sale annually a quantity of Strong-Beer, or Ale, not less than one hundred barrels, of thirty-one and a half gallons each, beer measure, with the utensils employed in such Brew-houses, and the immediate dependencies thereof, also all monies and stock of

every kind employed and improved in such Brew-houses, with the Strong-Beer, Ale, and other Malt Liquors which shall be there made, and purchased as aforesaid, with the faculty or annual profit of such manufacture, shall be, and they hereby are exempted from all taxes and duties of every kind for the term of five years next after the passing of this Act.

"[This Act passed June 22, 1789.]"

This act expired by limitation, and no new effort appears to have been made in the following years to control, by legislative enactment, the baleful effects of over-indulgence in spirituous liquors. From this fact it might be hastily inferred that our ancestors were disappointed at the result of their legislation. This assumption is, however, untenable, for the leading philanthropists of the same generation, who voted for this law, banded themselves together, twenty odd years later, into a "Society for the Suppression of Intemperance," which, in the second article of its constitution, pledged itself to the very same persuasive measure contained in the above law. The article ran as follows:—

"The object of the Society is to discountenance and suppress the too free use of ardent spirits and its kindred vices, profaneness and gaming, and to encourage and promote temperance and general morality. . . . Is it not practicable for labouring people and those who employ labourers to substitute for daily use good and wholesome drinks in the place of pernicious liquors and for all classes of people to refrain from the practice now so general of offering ardent spirit to all who come into their houses?"*

Even the divines of the day did not hesitate to advocate the same lenient but feasible course. The Rev. Andrew Nichols, of Danvers, puts the case so forcibly, in an address to this Society, that I will borrow an argument from him:—

"Notwithstanding my opinion of the use of strong drinks generally, I am now about to recommend the more extensive cultivation of fruits from which, by the addition of sugar, excellent wines may be fabricated, as the most certain means of lessening the prevalence of intemperance. We have to deal with mankind as they are, not as they should be. The taste and appetites of the present generation are already so far vitiated that to expect them to use nothing but the most salutary beverage, cold water, would be altogether chimerical. . . . Therefore the divine may preach, the moralist reason, and the physician lecture as to the destructive effects of ardent spirits, and still the multitude will continue to quaff the liquid poison until they are furnished with something more innocent, which is equally agreeable to the taste and gratifying to the appetite."†

A note, appended to the address, gives directions for making domestic wines from currants, gooseberries, elderberries, &c., which wines, it must be borne in mind, are not "syrops," but contain quite as much alcohol as the lighter imported wines of France or the Rhine.

Citations might be multiplied indefinitely to show that there has ever been a strong undercurrent of common sense pervading our community and frequently finding utterance by the mouth of one or another of our leading men. One of the most vigorous protests against the folly of the hour emanated from our great war-Governor Andrew, and was made the subject of so eloquent a tribute by the Rev. J. P. Thompson, of New York, that, at the risk of being tedious, I will introduce his remarks:—

"And, I am bold to say here, though perfectly aware that, in saying it, I shall make myself liable to misconstruction and misinterpretation in certain quarters, I am bold to say, that of late years, no argument of statesmanship has been submitted in the hearing of the people of these United States more sound, more true, more certain to commend itself in the long run, to the intelligence and conscience of the American people than the very argument

* The Constitution of the Massachusetts Society for the Suppression of Intemperance, published on the Anniversary of the Society, May 28, 1813.

† Address of the Rev. Andrew Nichols to the Society for the Suppression of Intemperance, April 27, 1819.

which I hold in my hand—the last great plea of Gov. Andrew, for which he suffered no little verbal abuse; his argument in the Representatives' Hall, in Boston, against the 'Errors of Prohibition,' an argument as sound in the interest of morality as in the interest of legislation; an argument of wonderful grasp of facts, an admirable marshalling of fact and opinion from learned sources touching the question at issue; an argument founded upon deep, broad principles, of the very highest morality, proceeding from a thoroughly conscientious soul, and imbued with the spirit of religion. And, though I have been of this way of thinking for very many years, an argument which has brought new conviction to my mind upon these points—that we cannot absolve ourselves from the great duty that the Creator has imposed upon us of maintaining our virtue and morality in a personal contest of will against the temptations of the world; that we cannot absolve ourselves from that and take refuge under a statutory morality, enforced, enjoined by the voice of the majority. An argument showing that it is not the function of a government to regulate all domestic and private life, nor the function of a republic to assume to be a Theocracy, and then to enact, as in the name of God, laws which He did not see fit to enact under the Mosaic Theocracy.”*

We who have lived to see an aggressive, domineering enactment imposed upon the people by the voice of a fanatic majority, and, not only its utter failure to accomplish the aims in view, but also the open violation of all laws which it has bred in our community, are ready to recognize the impolicy of interfering with the personal rights of the individual. There is not one of us, however, but is fully alive to the misery and degradation springing from drunkenness, and we would, one and all, cooperate in any attempt to lessen these evils, which was adapted to beings who are still subject to the wants, passions and weaknesses of humanity.

JAMES R. CHADWICK, M.D.

* Union League Club of New York. Proceedings in reference to the death of Governor Andrew, Nov. 11, 1867.

NOTES AND QUERIES.

DR. LATHAM says, in the *Lancet*, that “the patient's tongue may be moist and clean, his appetite ravenous, and the typhoid ulcers unhealed. The thermometer alone will tell this, ranging from 100° to 101°.”

Not always. I have known severe ulceration to continue, with nearly or quite normal temperature of the body.

THERMOMETER.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities for the week ending August 8, 1874.

Boston, 219; Worcester, 25; Lowell, 25; Milford, 4; Chelsea, 10; Cambridge, 48; Salem, 12; Lawrence, 9; Springfield, 15; Lynn, 9; Gloucester, 6; Newburyport, 4; Somerville, 8; Fall River, 40; Haverhill, 6; Holyoke, 10. Total, 450.

Prevalent Diseases.—Cholera infantum, 150; consumption, 57; diarrhoea and dysentery, 27; typhoid fever, 20.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 15, 220. Males, 117; females, 103. Accident, 8; apoplexy, 4; inflammation of the bowels, 5; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 4; cancer, 4; cerebro-spinal meningitis, 1; cholera infantum, 85; cholera morbus, 1; consumption, 18; convulsions, 4; cyanosis, 2; debility, 4; diarrhoea, 6; dropsy of the brain, 2; drowned, 1; dysentery, 4; diabetes, 1; scarlet fever, 2; typhoid fever, 10; gangrene, 1; gastritis, 1; disease of the heart, 4; disease of the hip, 1; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; inflammation of the lungs, 2; marasmus, 10; malformation of the heart, 1; old age, 6; ovarian disease, 1; paralysis, 3; premature birth, 4; peritonitis, 1; puerperal disease, 2; disease of the spine, 1; scrofula, 1; teething, 1; tumor, 1; tabes mesenterica, 1; umbilical hæmorrhage, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 139; between 5 and 20 years, 9; between 20 and 40 years, 27; between 40 and 60 years, 24; over 60 years, 21. Born in the United States, 181; Ireland, 22; other places, 17.

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COTTON-WOOL DRESSINGS FOR WOUNDS.

By THOMAS B. CURTIS, M.D., of Boston.

Read before the Massachusetts Medical Society, June 2, 1874.

IN December, 1870, Alphonse Guérin, Surgeon of the Paris Hospitals, now at the head of a surgical service at the Hôtel Dieu, instituted a new dressing for wounds, consisting, mainly, in the use of cotton wool, which is applied in very large quantities around the wounded limb, rendered firm and compact by tightly applied bandages, and left undisturbed for several weeks. Such a treatment was certainly a great novelty, and seems, at first sight, an eminently unsurgical proceeding; any one unfamiliar with the security of the new dressing and its admirable results would shrink from the idea of accepting the responsibility of an amputation stump or of a severely injured limb which must remain hidden from view for two or three weeks; it seems as if irremediable mischief must ensue during that space of time, in the shape of gangrene or retraction of flaps, burrowing of pus, erysipelas and pyæmia, with death or additional mutilation for the patient, and disgrace for the surgeon. Such is the picture that arises in the mind when the cotton wool dressing is first heard of, and even now we wonder at the apparent temerity of the surgeon who first ventured so to depart from the traditions of his art. A glance at the history of this recent innovation will show us that the cotton wool dressing is by no means irrational in conception, nor unsuccessful in practice. On the contrary, it has given such admirable results in the hands not only of its inventor, but of many others, by whom it has been enthusiastically taken up, that we are forced to admit that it must be, at least, worthy of attention and of study, if not of adoption.

During the Franco-Prussian war, and during the Commune, the mortality among the wounded soldiers in Paris was very great, chiefly from pyæmia and allied forms of hospital infection. Dr. Guérin, having charge of large numbers of wounded men, was led to make experiments, with a view to discover some means of averting the terrible complications which made death the almost inevitable result of every gun-shot wound, however treated; believing in the germ theory of putrefaction and of septicæmia, and knowing the power of cotton wool to deprive air of the putrefactive particles which it carries with it, he devised the cotton wool dressing, and immediately applied it in the Military Hospital of St. Martin, and in his wards at the St. Louis Hospital, where his own practice and that of his colleagues had, till then, given the most disastrous results. Notwithstanding the unfavorable conditions in which his first experiments were made, and his

own inexperience in the use of the new dressing, his efforts were crowned by immediate success; other surgeons, surprised at seeing his cases of amputation on the way to recovery, soon followed his example, and were similarly rewarded, after occasional disappointments, due to carelessness or lack of experience in the application of cotton wool. Guérin himself, after the war, was transferred to the Hôtel Dieu, where he found himself in charge of wards which had long been celebrated for their unwholesomeness, chiefly on account of frequent and severe cases of erysipelas. Here, also, his dressing continued to prove successful, enabling him to contend with the various forms of hospital infection which may be said to be endemic in the Paris hospitals, even in ordinary times.

Having thus briefly reviewed the circumstances which preceded and followed the adoption of the cotton wool dressing in Paris, I will now enter into a somewhat detailed account of the theory and practice of this new treatment of wounds.

If we wish to apply Guérin's dressing in an intelligent manner, and to carry out successfully all the rules laid down by its inventor, we must be governed in every step of the process by certain fundamental dogmas, which may, perhaps, still be considered as theoretical, but which have the approval of many of the first pathologists of our time, and which may be said to acquire a considerable measure of demonstration from the success of the very methods of treatment which their adoption has suggested. Therefore, without going at any length into the vast subject of germs, ferments and fermentations, we will simply recall, as briefly as possible, certain data which must be kept in mind if we wish to understand the object and the *modus operandi* of the cotton wool dressing.

The chief danger of wounds which are not rapidly fatal to life is known to arise from secondary febrile complications of an infectious nature. By some pathologists, the different varieties of febrile disturbance following traumatism, of which the most fatal is pyæmia, are all comprehended under the general term septicæmia, which designates a state of general infection, due to the absorption of putrid animal matter from an open wound; the putrefaction of discharges, which give rise to the production of the infecting material, results from the access of contaminated air, the contamination of the air being characteristic of the conditions which constitute what has been called "hospitalism." The nefarious influence exerted upon injured parts by air as it exists in any hospital ward is exemplified by the difference between a simple and a compound fracture. This influence of air upon open wounds is undisputed. But air is a complex body; it consists of various gases and vapors, mixed and holding suspended an infinite number and variety of solid particles, visible and invisible to the naked eye, and comprising animal, vegetable and mineral matter, and animal and vegetable organisms, dead and alive. Is it the air itself, the mixture of oxygen and nitrogen, which is the mischievous agent? Not so, if we may believe the evidence of Pasteur's numerous and most probant experiments, which show that air reduced to its gaseous constituents by heat or by filtration does not suffice to develop putrefaction of animal matter. A striking illustration of this fact, brought forward by Lister, is seen in the absence of putrefaction and consequent hectic disturbance in cases where a collection of blood and air within the

pleura has been the consequence of a fractured rib with wounded lung ; here the air, during its passage through the bronchi, great and small, and through the pulmonary vesicles, undergoes a thorough process of filtration, which deprives it of all the noxious particles which it originally contained, and renders its contact with the effused blood quite innocuous.

These facts demonstrate that putrefaction in all its modes requires as an indispensable determining condition the access of air charged with certain materials ; and as putrefaction is always accompanied by the development of minute living organisms, it has been plausibly supposed that the latter phenomenon was the cause of the former, and that the noxious materials conveyed by the air were the seeds of living organisms which are invariably found to be developed in putrefying animal matter. Hence the name of "germs," which has been given to the mischievous agents conveyed in unmodified air. It is true that these so-called "germs," unlike the adult organisms to which they give rise in putrescible matter, have not been seen and microscopically identified, and that their existence, being only known to us through their effects, is as yet only hypothetical. Nevertheless, the germ theory of putrefaction is a convenient one, and we will use the word *germ* to designate the unseen *nescio quid* which imparts to air its putrefactive properties, and which can be removed from the air, or rendered innocuous in various ways, namely, by heat, by filtration, or by chemical agencies.

Various modifications of surgical practice have been devised, based on the theory that putrefaction is the source of the septic material, and depends upon the contact of unmodified atmospheric air. These innovations have proved more or less successful and more or less easy of application. The use of chemical agents capable of destroying life in the minute organisms which are supposed to constitute the septic germs, constitutes the chief means of purification of air which has been tried ; Lister's antiseptic treatment of wounds affords the most successful and best known example of this use of chemical agents. Until Guérin's experiments, filtration had hardly been tried, or at least not successfully. Tyndall had shown, by his experiments with a beam of sunlight traversing a dark space, that a sufficient thickness of cotton wool would arrest the solid particles conveyed by air in the shape of dust, and Pasteur had established the fact that urine, boiled and put away in flasks stopped up with cotton wool, did not undergo putrefaction. Lister had even made some use of this property of cotton wool, in connection with his antiseptic treatment ; but to Guérin belongs the credit of having demonstrated the full surgical value of cotton wool, and of having shown how it must be used ; his dressing possesses, as we shall see, other merits besides the paramount advantage of preventing the action of septic influences ; this, however, is its main object, and the guiding principle in its application.

We will now consider the manner of applying the dressing, and, for convenience's sake, we will suppose a case of leg amputation at the seat of election. We will first describe the materials which must be in readiness.

The wool itself must be of good quality, tolerably white, and clean and free from foreign matter ; if possessed of a glazed surface, this

must be stripped off, and the sheets of wool, torn into long strips about a foot wide, must be rolled up so that they may be methodically applied around the part to be dressed. It is difficult to believe what an enormous quantity of wool may be used in a single dressing; in one of Guyon's cases, of which you see a thermographic chart, I found the wool on removal to weigh over two pounds, and Guérin has sometimes used as much as four pounds. The most common, and, perhaps, the most detrimental mistake of beginners is to apply much too small a quantity of wool.

Besides the wool in sufficient quantity, a number of rolled bandages, two inches wide and eight or ten yards long, must be at hand. The bandages preferred by Guérin are of unwashed linen; but no doubt the cotton rollers used in this country would be quite serviceable. The provision of bandages must be very abundant, as may be recognized when it is known that the bandages removed from some of Guérin's dressings have been found to amount in all to 150 or 200 yards! This estimate comprises the rollers applied at the first dressing, as well as those added subsequently to make the dressing compact, after some loosening of the bandages had taken place. I will say here, that it is a mistake, for reasons that will later become apparent, to use any stiffening substance wherewith to fix the bandages.

The materials being thus supposed ready, we will now describe the application of the dressing. In the first place, the operation and the dressing should never be performed in a septic atmosphere; never, consequently, in the wards. The object of the wool dressing we know to be the exclusion of septic germs from the wound; but this precaution against putrefaction by penetration of germs can only be successful provided we avoid imprisoning other germs under the dressing at the moment of application. The wool should, therefore, be kept stored up in bales out of reach of contamination by the air of the surgical ward, and it should be unpacked and prepared in the apartment in which it is to be used. This was about the only precaution used by Guérin in his early cases; now, after entire cessation of all hæmorrhage, he washes out the wound with a solution of carbolic acid (one per cent.); moreover, he intends, in future, following advice recently given by Pasteur, to purify his wool by subjecting it to a temperature of about 400° F., in a double-walled oven, heated by boiling oil. With regard to ligatures, Guérin uses silk, and cuts the threads off short, except one end of the ligature which holds the main artery of the limb; it would undoubtedly be more prudent to use the antiseptic carbolized catgut of Lister; Guérin's dressing has, nevertheless, been admirably successful without all these refinements, which would, perhaps, if carefully carried out, absolutely annul all possibility of septic infection, even in its mildest degree or form.

Everything being ready, an assistant sustains the limb, which projects freely beyond the edge of the operating table. The first step varies according as immediate union is or is not to be sought. In the first case, sutures can be used, unless the surgeon has acquired sufficient skill in the application of the dressing to be able to secure accurate coaptation of the flaps by the simple pressure of the cotton wool. If immediate union is not to be attempted (and such is the practice generally preferred and advised by Guérin), the space between the flaps, which are held apart by an assistant, is to be completely filled with

little wads of loose cotton wool, evenly superposed. Then the sheets and rollers of cotton wool are to be wrapped and wound over and around the limb, evenly and methodically, so as to surround it with a homogeneous mass, of even thickness, which must, in all cases, extend beyond the first joint above the seat of amputation; thus, for any operation below the knee or elbow, the whole thigh or arm must be included in the dressing; and for any operation higher up, the pelvis and abdomen, or the shoulder and chest must be included. As I said before, the quantity of wool to be thus applied seems at first sight monstrous and absurd; the only way to put on enough, says Guérin, is to put on too much; so long as strong pressure through the wool upon the locality of the wound gives any pain, the quantity is still insufficient, and more must be added.

Now comes the second step, more difficult to accomplish than the first, namely, the application of the bandages. Our object now is to fix the cotton wool securely, so as to prevent its getting displaced, and to apply, through its superincumbent mass to the parts beneath, a very considerable degree of elastic compression, this being, in Guérin's eyes, almost as important a factor of success in the use of his dressing, as is the filtration of air. The first turns of the bandage serve to secure the soft mass of wool, and to mould it, as it were, into something like its future shape and size; oblique and spiral turns are made in various directions up and down the limb, wherever any bulging shows an insufficient compression of the wool, particular care being taken to compress the end of the dressing, as well as its sides; for this purpose, a sort of capellina has to be applied over the end of the stump. Gradually, the cotton wool gets covered at every point, by the successive overlapping turns of the roller, which grow tighter and tighter as the application progresses; at the same time, the mass of wool grows smaller and more compact, while preserving an even surface and a symmetrically ellipsoidal or ovoid shape; the last layer of rollers must be applied with all the strength that the strongest hands can afford; this enormous degree of constriction will give no pain, and do no harm to the injured parts, provided the quantity of wool be sufficiently large. When completed, the dressing forms a firm, smooth, hard mass, of uniform consistency, through which a blow or any strong pressure expends its force without reaching the subjacent parts, and in which percussion gives a sonorous note like that yielded by a healthy thorax.

The patient is then carried to his bed; his limb is laid upon a folded sheet, and covered by a cradle. There now remains little to do, but to carefully watch the patient's general health, and the condition of the dressing. With regard to the dressing, one additional measure remains to be taken; after the lapse of some twenty-four hours, the mass of cotton wool, becoming packed, loses somewhat of its expansive elasticity, so that the bandages become loose; it therefore becomes necessary on the second day to apply another layer of bandages, so as to obtain anew the firm consistency and the elastic compression of the freshly applied dressing; generally, after this second application of rollers, the dressing will keep its consistency and shape undisturbed for many days; still it must be watched, and its defects must be remedied as soon as apparent, by the application of new and tight bandages. It is on account of this necessity to renew the compression

from time to time, as the wool gets packed and the bandages loosen, that the silicated bandage, added by Ollier (of Lyons), does not constitute a happy modification of Guérin's dressing. If all go well, the dressing may be left undisturbed for two or three weeks; we will see presently in what condition the stump and wound will be found at the expiration of this time.

But how are we to know that all is going well under the mass of dressing which conceals the injury from our eye for so many days? We can keep sufficiently informed to allow our minds to be at rest, by carefully watching: 1. The state of the dressing. 2. The general condition of the patient.

1. *The State of the Dressing.*—Some discharge necessarily takes place from the wound; if it be moderate in amount, and if the dressing be sufficiently abundant and compact, the discharge remains confined in the depths of the cotton wool, away from deleterious atmospheric influences. Otherwise, it will soak through the entire thickness of dressing which covers the wound, so as to spot or wet the folded sheet on which the limb rests, or else it may run along the posterior aspect of the limb, between the skin and the innermost layer of wool, and make its appearance at the upper limit of the dressing. In either case, as soon as the discharge reaches the exterior, the spot where it appears should be disinfected by an application of a saturated solution of carbolic acid, and a fresh layer of cotton wool and rollers should be added, so as to completely cover over and bury the weak spot. If these measures be applied in time, no harm will result from a moderate soakage of the inferior portions of the dressing. As time progresses, even in the most successful cases, more or less odor is given off by the dressing; in all cases that I have seen, there has been decidedly a bad smell, of a penetrating and somewhat pungent quality, sufficiently disagreeable to make it necessary to resort to deodorizing solutions, which may be sprinkled over the surface of the dressing. The smell, however, is distinct from that of putrefying pus, or of foul wounds in general, and Guérin asserts and shows by experiment that his dressing, applied to a sound limb, acquires much the same smell as that which it gives off when covering an amputation wound. On account of these facts, I think that the odor of the dressing affords, generally, no clue to the condition of things within, unless, indeed, it be very strong and of a decidedly putrid quality.

2. *The general condition of the patient* constitutes by far the most reliable index of the state of things under the cotton wool; as long as all goes well, he is remarkably free from pain, enjoys good spirits, eats and sleeps well; moreover, and here we have the most trustworthy guide, his temperature, taken with a thermometer twice a day, keeps within the limits of a moderate degree of traumatic fever of short duration. The daily use of the thermometer is absolutely indispensable in these cases, and no one should attempt, without it, to carry out the cotton wool treatment. The indications afforded by the thermometer are wholly reliable, and sufficient for the safe management of the case. All untoward events and accidents, as sloughing of flaps, burrowing of pus, contamination of discharges, and septic infection are announced by an immediate rise of temperature, which betrays the unseen mischief, and puts the surgeon on his guard; it then becomes at once his duty to remove the dressings, and to inspect the wound with a view

to remedying, if possible, the unfavorable conditions which have given rise to the trouble; it can, however, be safely asserted that these accidents are very rare, and that they are always due to some defect in the application of the dressings; when these have been carefully and skilfully applied, they may almost always be left undisturbed till the healing process is far advanced, if not almost completed.

Supposing all to have gone well, the dressing is left undisturbed till the fifteenth or twentieth day, when it may be removed; it is then very interesting to observe the appearances presented by the dressings and wound. The bandages being first unwound, or cut through and removed, the cotton wool should be torn open, layer by layer, along the anterior aspect of the stump. When the immediate neighborhood of the wound is approached, the deepest layer of wool is found to be converted by the inspissated discharges into a moist, brownish felt cap, which covers the end of the stump, and which, around the wound, adheres closely to the skin. This adhesion of the deepest layer of wool to the cutaneous surface of the flaps is a favorable occurrence, as it confines the discharge, and prevents it from making its way along the posterior surface of the limb, so as to reach the upper limit of the dressing, and thus come in contact with the outer air. Between the surface of the wound and the neighboring deepest layer of wool is a small space containing a few drachms of thick fluid, resembling pus. This, on examination, is found to be a thick, yellow or brownish, somewhat offensive fluid; when subjected to a microscopical examination, it turns out to be an emulsion of fine, fatty granules, very few pus cells being distinguishable; this condition of the pus is due, no doubt, to the cells having undergone a fatty degeneration, in consequence of the long confinement. Moreover, in cases where the dressing has been completely successful, no traces of vibriones or minute organisms, dead or alive, are to be found. Pasteur himself, whose authority on the subject of ferments cannot be disputed, has lately passed several hours at the Hôtel Dieu with Guérin, examining patients, and in the five cases in which the discharge found on removal of the dressing was examined by him, he failed to detect any minute organisms, such as are the inevitable concomitants of putrefaction. The next striking thing about the discharge is its very small quantity, which often does not exceed half an ounce, in cases where the dressing has remained undisturbed for over three weeks; this is a subject of some surprise, when we reflect how long the discharge has been accumulating, and contrast the amount with that which would have been given off and removed in daily dressings conducted in the usual way.

The discharge being removed, the wound and stump are found to be in a most satisfactory condition. Of course, immediate union is wholly out of the question, when the space between the flaps has been filled with wool; when steps have been taken in view of immediate union, it may be found to have taken place more or less completely by the sixth day. But in the case we are supposing, the wound has granulated from the bottom, and by the end of the two or three weeks that have elapsed, the bone is found completely covered, and the space between the flaps is partly filled by abundant, rosy-red granulations, of the most satisfactory aspect. The limb above offers a perfectly natural and healthy appearance, being neither red nor swelled, and looking as if the operation had just been performed.

The dressing having been removed, and the wound and stump being found in a satisfactory state, as just described, the question arises whether we should now apply a second dressing similar to the first, or resort to one of the usual modes of treatment. Guérin used at first to reapply the wool, sometimes two or three times, till the wound was completely healed, but it has been recognized that *after a certain stage of reparation was reached, further progress was very slow under the cotton wool*. Guérin's practice now is to remove his first dressing at the end of the second, third or fourth week, by which time he confidently expects to find the bone covered, and the space between the flaps filled to a considerable extent with granulations; then, if the sanitary condition of his wards appears to be tolerably good, he brings the flaps together with adhesive plaster, and applies an ordinary, open dressing. But if the bone is not covered, or if there be reason to fear infection through the exposed open wound, he reapplies a wool dressing, as before, and leaves it undisturbed for a week, ten days or a fortnight.

Before passing to other considerations, it may be well to briefly recall the important points in the application of the dressing, and in the management of the case. Hæmorrhage must have entirely ceased, and its recurrence must have been carefully guarded against before the dressing is applied. A very large quantity of cotton wool must be laid on, and a very great degree of compression must be brought to bear upon it by means of numerous carefully applied and tightly drawn bandages. Guérin's precept to beginners is to "apply too much cotton wool, and to bandage too tightly." Finally, the patient's temperature must invariably be taken twice a day, in order that any complication may be immediately detected; with this supervision, the cotton wool dressing is a perfectly safe mode of treatment; without it, none, perhaps, could be more dangerous.

We have hitherto been supposing a successful case, in which, the dressing having been skilfully applied, all had gone well. But the conditions are not always so favorable, and certain accidents and complications may be met with, due, almost always, either to the primary injury, or to defects in the dressing.

The fear of secondary hæmorrhage taking place unobserved under the wool has been to many a cause of distrust in the new dressing. I have never seen a case in which secondary hæmorrhage occurred; but Hervey, lately Guérin's interne, in an exhaustive essay upon the subject of cotton wool dressings, asserts that a very slight amount of blood speedily traverses the dressing, and appears at the surface in the shape of a rapidly spreading spot, so that, by proper watching, the accident can always be detected in time; the measures to be adopted are sufficiently obvious, and need not detain us.

Freedom from pain is a striking feature of the cotton wool treatment, as well as one of its great advantages; in a very few hours, the immediate pain of the operation passes away, not to return, provided the dressing, well applied, be subsequently well managed. According to Hervey, persistent pain is only observed in cases where, the quantity of wool being insufficient, air has gained access to the wound, and has set up inflammatory action, or else in cases where sloughing has taken place. This latter accident is rare, not having been met with at all in Guérin's practice. Hervey has seen it a few times in the wards of

other surgeons, and attributes its occurrence in most cases to the primary injury, which had extended farther than appeared at the time when amputation was performed; in a very few cases, sloughing of the flaps appeared to be due to the wound having been too tightly packed with wads of compressed wool; Guérin's practice is, as we saw, to fill the wound with loosely laid wool. Be this as it may, sloughing is rare; certainly not more common than with other modes of treatment.

Suppuration, whether confined in the shape of abscesses, or extensive and burrowing, is not met with in cases where the dressing is properly applied so as to ensure the maintenance of a sufficient degree of compression; on the contrary, the amount of pus discharged at the surface of the wound is remarkably small, and the soft parts of the stump being neither swelled nor red, and offering no features of the phlegmonous condition, are in a state which is exactly the reverse of that which favors deep suppuration.

The subject of erysipelas may be disposed of in a few words. Not one case has been seen among Guérin's patients, although he has lately been applying his dressing in the Salle St. Come of the Hôtel Dieu, where this complication was formerly very frequent and fatal. Erysipelas occurred in one of Verneuil's cases where the first cotton wool dressing was removed, and a second one applied *in the ward*. A similar imprudence was once committed by Guérin, and the patient died of pyæmia. These two cases are forcible illustrations of the noxious influence of contaminated air, and show the absolute necessity of never allowing it to come in contact with recent wounds, unless purified or rendered harmless by one of the physical or chemical means which are at our command.

I have still to speak of fever, a most important part of our subject, on account of its prognostic significance. The limited time at my command obliges me to be very brief, and to confine myself to a few indispensable statements. In the first place, there is almost always a certain amount of traumatic fever, even in the happiest cases; the febrile disturbance is generally moderate in intensity, and of short duration, defervescence being well marked, and followed by a permanent decrease of temperature. So long as the feverishness is of moderate intensity, during the first week following the operation, the patient being at the same time free from pain, and the dressing being in a satisfactory condition, it may be confidently assumed that the case is progressing favorably; but if the temperature remain high after the sixth or seventh day, or if it re-ascend after temporary cessation of the legitimate traumatic fever, there is reason to fear the existence of some complication, which will generally be found to be due to some defect of the dressing, original or acquired. In most cases of this kind, it will be found, on examination, that some discharge has reached the exterior so as to become exposed to the air, and if the weak spot be first disinfected and then protected by the addition of a fresh layer of wool and bandages, the febrile state, according to Guérin's assertions, will subside without occasioning further trouble. Persistent pain, with fever, has been found to accompany sloughing; when these symptoms are present, the dressing must, of course, be removed.

The invasion of pyæmia is announced by the usual symptoms. Guérin does not claim that his dressing gives absolute immunity from

pyæmia in all its forms. It is known that, under certain quite exceptional circumstances, death may occur with metastatic abscesses in the viscera, and disseminated suppuration of synovial and serous sacs, without any open wound having existed, as in certain rare cases of simple fracture: when the infectious influences have reached this degree of intensity, we could hardly expect that patients with open wounds under the cotton wool should escape. But the new dressing does confer, beyond a doubt, a remarkable degree of relative immunity from pyæmia, as well as from the other secondary affections depending upon hospitalism. It is for this reason that the new dressing has been so enthusiastically and so generally adopted among Guérin's fellow surgeons; Professors Verneuil, Broca, Trélat and Gosselin, Drs. Guyon, Panas, Tillaux, Cruveilhier, Duplay, Vidal, Labbé and Desormeaux, all surgeons of the Paris hospitals, and Ollier, of Lyons, have successfully applied the cotton-wool dressing, and have reported cases. No better field could possibly be found in which to test the efficiency of any antiseptic treatment than that afforded by the surgical wards of the Paris hospitals, and the general adoption of the wool dressing, notwithstanding the jealousy with which all innovations are greeted in France, would alone suffice to show that the success attendant upon its use must have been very great. Analogous results have undoubtedly been obtained by Lister, but his dressing is so complicated and so difficult of performance as to have exhausted the patience, sooner or later, of almost all who have tried to imitate his practice, and who had not the affectionate interest of the inventor of a new method to keep up their zeal throughout the arduous labors entailed by the antiseptic method. The cotton-wool dressing, on the contrary, though not *easy* of performance, as might erroneously be supposed, is successfully applied by others besides its inventor, and is giving almost universal satisfaction among those who have learned to use it.

To what cases may the wool dressing be said to be applicable? Undoubtedly amputation wounds have hitherto furnished the most numerous and striking examples of success; among them, we find one case of hip-joint amputation, reported by Hervey, from Tillaux's practice. Immediate union has been occasionally attempted and obtained, with a great saving of time, the dressings being removed as early as the sixth day in some cases; but Guérin still generally adheres to his primitive method of filling the wound with wool, thereby sacrificing all chance of immediate union, and he advises all beginners to imitate this practice.

Resections of joints and partial resections of bones have given good results under the wool dressing. Guérin's first success was obtained in a case of partial resection of the radius, and since then the elbow-, shoulder-, knee- and ankle-joints have been successfully treated after excision, by the new dressing.

Guérin's method has been applied to almost every variety of accidental wound of the limbs, from crushed or otherwise wounded hands and feet, with fractured or comminuted bones, lacerated tendinous sheaths and joints, up to compound fractures and dislocations, with the most extensive injury compatible with conservative treatment. I only mention this class of cases, without going into the manner of applying the dressing in cases of such severe injury. The difficulties of successful application are much greater in cases of compound frac-

ture than in amputations, which are to be recommended for first trials of the dressing; injured hands and feet are also good cases for beginners, as they may be put up in the cotton wool, like amputation stumps, care being taken to separate the toes or fingers with wads of wool. As a rule, it may be said that the dressing is most easily applied to the extremities of the limbs, and that the difficulties of performance and the chances of failure increase as the injury approaches the trunk; it is, therefore, more easy to apply the dressing in an amputation of the leg or forearm than in a case where the thigh or arm is the seat of operation.

In cases of removal of the breast, the wool dressing has been applied with occasional success, but also with many failures. Indeed, the difficulties are so great, on account of the shape and mobility of the thorax, that Guérin has now given up further attempts; the trouble is that the dressing breathes, as it were, with every respiratory movement of the patient, so that it is almost impossible to prevent the air from rapidly gaining access to the discharges confined within the cotton wool.

In conclusion, I will briefly recapitulate the merits and demerits of Guérin's dressing, in order that we may be able to form some estimate of its value in practice.

Its *advantages* are the following:—1st. Entire or partial prevention of pyæmia, erysipelas and hospital gangrene. 2d. Painlessness. 3d. Immobility of the injured parts, to which, with the firm but even compression, is due the antiphlogistic action of the dressing. 4th. The rarity of the dressings. 5th. The transportability of the patient, whose injured limb is protected from all chances of mechanical injury.

The *disadvantages*, on the other hand, are:—1st. The necessity of ceaseless watching of every case by all the means at our command, including the daily use of the thermometer. 2d. The slowness with which the last stages of reparation are effected under the cotton wool. 3d. The more or less disagreeable smell which the dressing generally acquires.

From these considerations, we may conclude that the cotton-wool dressing is most likely to be useful in enabling the hospital surgeon to cope successfully with unfavorable nosocomial conditions, and for this purpose its use during the first two or three weeks may be recommended in cases of amputation or of injury to the limbs, whenever pyæmia or erysipelas are to be feared. In private practice, where the danger of infectious complications is so very slight, the wool dressing loses its first indication, and here, among a more fastidious class of patients, the smell may prove objectionable; then, again, we must remember that the rarity of dressings is perhaps counterbalanced by the absolute necessity of a daily visit from the surgeon. In military surgery, the utility of the cotton-wool dressing may be curtailed to a certain extent by the bulkiness of the material which it necessitates; but, on the other hand, the immunity from septicæmic complications which are so rife in army hospitals, the transportability of the patients, and the diminution of the labor caused by the infrequency of the dressings, appear to constitute very great advantages.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By W. L. RICHARDSON, M.D.

(Concluded from page 189.)

DISEASES OF WOMEN.

Subacute Ovaritis.—E. J. TILT, M.D. (*Transactions of the London Obstetrical Society*, xv. 1874.)—The difficulty of correctly diagnosticating ovaritis arises chiefly from the fact that peritonitis obscures the diagnosis by embedding the pelvic organs in a mass which forms, only too often, a hard pathological puzzle. The symptoms may be divided into those known as catamenial and objective.

Although subacute ovaritis may be met with during the whole period of ovarian activity, it is most likely to occur in young unmarried women, from fifteen to twenty years of age, particularly in those who are delicate in body, sensitive in mind, and with proclivities to tubercular disease. When met with in women presenting none of these peculiarities, the patients will be found to have suffered all their lives from menstrual irregularities. Women, suffering from this trouble, complain of habitual pelvic and mammary pain, and especially of a marked aggravation of the nervous symptoms of menstruation, the menstrual flow being usually too abundant, or, as occasionally happens, too scanty. The pain of subacute ovaritis is deep seated, persistent, moderate, bearable, extending from the ovarian region to the knee, and sometimes accompanied by numbness, coldness and anæsthesia of the anterior part of the thigh. The pain gives rise to a certain degree of hesitation in the patient's movements, since she has learned to know that a sudden motion will increase it. Firm pressure on the ovarian region increases the pain and the peculiar nausea which not unfrequently accompanies it. The pain sometimes subsides soon after menstruation, only to reappear, however, a few days before the next period. It is not relieved by a free flow of the menses. Menstruation is preceded and accompanied by a marked aggravation of the usual mammary symptoms of that period, the breasts being swollen, painful and hot. Hysterical phenomena may also be present.

A vaginal examination will often throw a great deal of light on the case, even if it does not finally settle the diagnosis. The left hand should forcibly depress the ovarian region, while the two first fingers of the right hand examine, *per vaginam*, both sides of the body of the uterus. A forcible inclination of the cervix uteri to the side on which the disease is supposed to exist, stretches the connections of the fundus uteri and the ovary to such a degree as greatly to increase the pain. Sometimes the ovary descends into Douglass's pouch, where it can be felt as an ovoid body, about two inches long, either more or less fixed by peritonitis, or fleeing from the finger, only, however, to return, as by a kind of ballottement. This body, when seized, will be found to be semi-elastic and peculiarly sensitive to pressure. A combined rectal and vaginal examination will often be found of great service in making out the diagnosis.

As regards treatment, a well-appointed hygienic course for menstrual

and inter-menstrual periods should be advised, combined with a tonic treatment. Six leeches should be applied to the suspected ovarian region, which should subsequently be painted with oleate of mercury for six weeks, after which counter-irritants may be used.

In all cases where uterine disease coexists, it should be carefully treated, since it will be found impossible to relieve an ovaritis while a disease of the uterus is allowed to continue unheeded. In these cases, in addition to the above treatment, an injection should be ordered twice a day of acetate of lead. Not unfrequently, in these cases, marriage will be immediately followed by a severe attack of uterine inflammation.

Change of Life.—As regards the relations of the change of life to insanity, Dr. H. Sutherland closes a valuable paper (*West Riding Asylum Reports*, vol. iii.; *British and Foreign Medico-Chirurgical Review*, April, 1874) with the following conclusions:—

1. That insanity occurring at the change of life is not usually caused by that condition *per se*, but is most frequently due to some other moral or physical cause coincident with that period.

2. That the age most liable to attack is forty-five years and two months.

3. That the onset of the insanity generally occurs one year after the cessation of menstruation.

4. That the married state does not seem to predispose to that disease.

5. Nor does the number of the patient's children have any predisposing effect.

6. The forms of insanity most common are melancholia, and, more rarely, mania.

7. There is a certain group of symptoms sufficiently characteristic to enable us to diagnose a case of climacteric insanity, independently of any knowledge of the history of the case.

8. The prognosis is decidedly favorable, recoveries being over 40 per cent. of those attacked.

9. The duration of the attack is usually more than three months, and less than three years. Complete recovery is not to be expected until twelve months after the commencement of the attack.

10. With regard to treatment, mild sedatives and aperients, a careful watchfulness of suicidal tendencies, and the observance of a quiet and regular course of life, are chiefly indicated.

Gangrenous Vulvitis.—This affection is occasionally met with in young girls as a sequela of scarlatina, a severe attack of fever, or in the course of any serious disease affecting the whole organism. Various remedies have been suggested, with a view of cutting short the rapid spread of the evil. The actual cautery in the hands of Guersant and Trousseau, and the chloride of zinc, as used by Rilliet and Barthez, have, in many cases, proved successful; but both of these methods are exceedingly painful, and oftentimes uncertain in their action.

In a recent article (*Le Progrès Médical*) M. Parrot records the gratifying results which have followed the use of the iodoform powder in the wards of the Children's Hospital (Paris). Until recently, M. Parrot had been in the habit of treating the disease either with a concentrated solution of the chlorate of potash, or by nitrate of silver. The success which followed these methods of treatment was not to be compared with that which he has obtained since the introduction of

the use of powdered iodoform. Within two or three days after its use the progress of the ulcer seemed invariably to be arrested, and the wound would immediately begin to take on a healthy action. The remedy was used very freely, great care being taken that every part of the ulcer was completely covered with the powder. The dressing was always applied daily, and in cases where the discharge from the ulcer was very great, it was found advantageous to renew the dressing at night during the first two days.

Vascular Growths of the Urethra.—Dr. A. W. Edis contributes (*British Medical Journal*, April 4, 1874) a valuable paper on the treatment of this class of growths without an operation. After alluding to the unsatisfactory results which usually follow the treatment of these growths, he advises the use of chromic acid, with which he has succeeded far better than with any other agent. His method has been to apply a saturated solution of the acid by means of some cotton wool wound about the end of a piece of stick. The cotton wool, well moistened with the acid, is to be pressed upon the growth until it becomes shrivelled. Care must of course be taken to protect the surrounding parts from coming in contact with the acid. This can best be done by covering them with lint or cotton wool, soaked in a solution of carbonate of soda. This same solution must be applied to the growth subsequently to using the chromic acid, so as to neutralize any excess of the acid which may be left behind. The use of chromic acid in this way causes very little pain or inconvenience to the patient, while the sensitiveness of the tumor is almost entirely destroyed. It may be necessary to make several applications before the difficulty is entirely removed. These subsequent applications should be made at intervals of a week. Several cases are given in detail in his article to illustrate the treatment he advises.

Dr. Robert Barnes advises (*Diseases of Women*, 1874, p. 767) the application of the actual cautery, using cold-water dressings after the operation. After the sloughs have fallen, the use of an astringent lotion will complete the cure.

Vaginismus.—Prof. Breizky (*Schmidt's Jahrbücher*, 6, 1873) divides this affection into three classes. The first is where it is met with in childless but healthy women, in whom no disease of the genital organs can be discovered. There is an abnormal sensibility during sexual intercourse, which, in some cases, is rendered impossible, owing to the excruciating pain which it produces. The hymen is usually found to be intact. In the second class, local lesions, productive of more or less irritation, will be found, which give rise to a reflex spasm of the constrictor vaginae. These lesions are various, but chief among them may be mentioned fissures or ulcerations in the region of the hymen, cicatrices of the vulva, vaginal or urethral excrescences and rectal growths. Very frequently, this form of the malady is found in women who have been recently confined. The third class occurs as one manifestation of hysteria, or any other morbid condition of the nervous system.

As regards treatment, the writer discourages too much local treatment as tending rather to increase than to relieve the difficulty. Where any new growth or excrescence exists, it should be removed, and any remaining cicatrices should be divided. The vagina should be dilated, not gradually but forcibly. The former method of dilata-

tion too often causes serious irritation. In cases where the hymen exists, it should, of course, be incised. The dilatation of the vagina may be accomplished by a speculum whose blades are forcibly expanded, or by the hands of the operator.

Fibroid Tumors of the Uterus.—Dr. Bengelsdorf publishes (*Berliner Klinische Wochenschrift*, Jan. 12, 1874) the results of some experiments he has made as to the efficacy of hypodermic injections of ergotin in cases of uterine fibroids. He used the same formula which Prof. Hildebrandt has so highly recommended, but he did not obtain such favorable results. He thinks that the statements of Prof. Hildebrandt require some modification. According to his experience, the value of ergotin in these cases is due to the fact that it acts by contracting the bloodvessels which go to nourish the foreign growth. In other words, an atrophy follows the diminution in the amount of blood supplied to the tumor. Fibromata, which appear after the cessation of the function of menstruation, are not, therefore, acted upon by the ergotin, since, owing to a deficient vascularization of the tumor in these cases, it resembles cicatricial tissue. In chronic metritis, however, the writer has seen marked benefit follow injections of ergotin, the enlarged and painful condition of the uterus and the accompanying leucorrhœa yielding much more speedily than was the case when the remedy was given internally.

Sponge Tents.—Dr. Lawson Tait advises (*Medical Times and Gazette*, Jan. 10, 1874) the use of the oil of cloves as a disinfectant in the manufacture of sponge tents. He claims that tents charged with a five per cent. solution of the oil of cloves will remain for a long time in the uterus without becoming in the slightest degree offensive.

Physicians, who are frequently obliged to use sponge tents, are aware of the extremely offensive smell which a sponge tent acquires after remaining in the uterus a few hours. The use of a wad of cotton wool, soaked in glycerine, and introduced into the vagina immediately after the introduction of a sponge-tent has frequently seemed to the writer of this report to act as a partial disinfectant, but not as satisfactorily as Dr. Tait claims follows the use of the oil of clove.

Dr. De F. Willard has recently reported (*American Journal of Obstetrics*, Aug., 1874) a case of death on the ninth day, following the use of sponge tents.

In the discussion which followed the report of this case at a meeting of the Philadelphia Obstetrical Society, two analogous cases were reported. Dr. Goodell, the President, also reported a case of death, which had followed the use of three sponge tents. He believed, however, that it was not the introduction of the first batch of tents into the cervical canal which did the mischief, but those which were subsequently used. The first tent irritates the cervix uteri and causes a congestion and subsequent abrasion of the mucous membrane. The fœtid discharges or septic material generated by succeeding tents is absorbed by this abraded surface. His custom was to first stretch open the cervical canal by means of a uterine dilator, and then, having introduced the largest sponge tent possible, to insinuate around it several small laminaria tents. In this way, the necessary dilatation is accomplished by one application of tents. During the presence of the sponge tents within the cervical canal, he invariably recommends the free use of detergent vaginal washes.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 27, 1874.

ALTHOUGH we have thus far refrained from joining in the hue and cry against those who meditate destruction to the Boston Common under the guise of much needed city improvement, it is not because we are not in full sympathy with the conservative party on this subject. Changes in this country take place so rapidly, and the sweeping away of old landmarks by the constantly increasing demands of business in all our prosperous cities is a matter of such frequent occurrence, that it is hardly to be wondered at that men are to be found who look upon the Common as a serious obstacle to the growth and development of the business portion of the city. To such persons, it avails little to say that this spot is rich in old memories, one of the few links we still possess that bind us to the past, or even that such large spaces covered with pure vegetation are in reality "the lungs of the city." To talk to them about the advantages to the masses of such a resting place during the stifling weather which drives them from close, musty rooms and narrow streets, steaming with indescribable odors, to breathe air cleansed by fresh leaves and grass, is but to excite derision. The "practical business man" is not to be misled by sentiment or theory, and his mind prefers to dwell upon a more congenial picture than the simple beauties of the Common afford.

With Commonwealth and Columbus Avenues extended through to some point on Tremont Street, and such additional "improvements" made as would doubtless suggest themselves, opportunities would be offered for developing valuable portions of the city which now are not available for business purposes. It is true, the Common would greatly suffer, and ultimately be destroyed by this plan, but of what use can it be after we have once obtained a new and larger park beyond the city limits? Such are the views and arguments of a not unimportant set of men in this city, who would be glad to see streets and shops in place of green grass and shady walks. We believe these men greatly under-estimate the value of an open space in the centre of a large city. Instances of such parks are to be found in nearly all the larger cities of Europe, and to a somewhat limited extent also in this country. In London, particularly, some of the most valuable and central portions of the city are preserved in this way, and to an extent that would make our own park seem small in comparison. When parks are not practicable, we find broad avenues, with plenty of tree shade, supplying their place. This want of open space for vegetable life to thrive in

finds expression in some form almost everywhere, and where this want is ignored, the penalty is sure to be exacted sooner or later. Overcrowding is as dangerous for cities as it is for tenement houses, from a sanitary point of view, while the dangers of fire are greatly increased, to say nothing of the effect upon public morals.

The Common, if it escapes the "improvements" contemplated, will be more appreciated by another generation, when the city shall have far outgrown its present limits. It will then doubtless form the eastern terminus of a chain of parks, some of which will, as they properly should, lie on the outskirts of the city, while others extend into and intersect the crowded centres. We have lately seen a plan for a water park, in which the Boston of the future is graphically represented. The sketch serves to show what the possibilities are with the natural advantages which the peculiar conformation of land offers us. To cut up the Common piecemeal, a result sure to follow any such dangerous precedent as recently has been suggested, or to neglect to enlarge our breathing spaces by uniting them with a series of parks, some of which should involve the improvement of certain waste lands and sheets of water in our immediate neighborhood, will not only violate all sanitary laws, but will, without doubt, seriously interfere with the future prosperity of the city.

WE have received the following circular from the Supervising Surgeon, the object of which is to obtain all possible information in regard to the late epidemic of cholera.

(OFFICE OF THE SUPERVISING SURGEON,
U. S. MARINE HOSPITAL SERVICE,
Treasury Department, August, 1874.

DOCTOR,—The Supervising Surgeon of the United States Marine-Hospital Service having been designated by joint resolution of the XLIIIrd Congress, approved March 25, 1874, in connection with a medical officer of the Army, "to confer with the health authorities and resident physicians of such towns [as were visited by the cholera epidemic of 1873], and to collect, so far as possible, all facts of importance with regard to such epidemic"—for the purpose of making a report of the same to the President of the United States to be submitted to Congress—I have the honor respectfully to solicit a detail of the facts which came under your observation concerning the propagation and spread of the disease during that year.

The following memorandum embraces, substantially, the points upon which information is desired:—

1. Name, sex, and age of patient.
2. Residence of patient—town, street and number.
3. Day and hour of attack.
4. Premonitory symptoms, their nature and duration.
5. Progress of the disease:—
 - a. Day and hour of beginning of rice-water discharges.
 - b. Day and hour of beginning of cramps.
 - c. Day and hour of beginning of collapse.
 - d. Period and extent of suspension of renal function.
 - e. Nature of treatment and result.
 - f. Day and hour when convalescence began.

- g. Day and hour when death occurred.
- h. Post-mortem appearances in detail.
6. Story of house occupied and height of floor from ground.
7. Sanitary condition of house and enclosure:—
 - i. As to cleanliness of rooms—clean, neglected, filthy.
 - k. As to ventilation and light—good, defective, bad.
 - l. As to drainage of house—good, obstructed, absent.
 - m. As to drainage of ground—good, obstructed, absent.
 - n. As to location and condition of privies or water-closets, connection with street-sewer, mode of flushing, of ventilation of soil-pipe, disinfection, &c.
 - o. As to surface water, garbage, or filth about the premises.
8. Source and quality of water-supply. If from a well or cistern, proximity of privy, sewer, or drain thereto, and chance of pollution.
9. General topography of localities in a given town where cholera has prevailed.
10. Character of soil.
11. Character of drainage.
12. Occupation and habits of patient, and whether a resident of house where attacked for two weeks or over.
13. The facts in any case where the patient was attacked within two weeks after removing from an infected district into one previously free from the disease, specifying the respective districts and the character of the exposure.
14. The sequence of cases where more than one was attended, with their relations to each other, and to the cases of other physicians, with names of such physicians.
15. The means and agents used by the physician, by the family, and by the municipal authorities to prevent the spread of the disease, and the result of such preventive measures.
16. Public measures taken to prevent the introduction of the disease into your community, with the result.
17. Temperature, rain-fall, and prevailing winds for as long a period as practicable prior to appearance of cholera, and also during its continuance.
18. Dates of first and last cases of cholera in the locality in 1873—total number of cases and mortality.
19. Connection, if any, between first cases in 1873 and the localities of the disease in the immediately preceding epidemic.
20. Names of cities, towns and villages known to you where cholera occurred during 1873, with any facts relating to the introduction of the disease to such, and the address of some respectable practitioner residing in each of the places named.

Contributions to this investigation, by answers to the foregoing—or to so much thereof as is practicable—will be fully acknowledged in the official report, the value of which, it is hardly necessary to say, will largely depend upon the coöperation of the profession thus sought.

Copies of any reports or papers which you may have already prepared on the subject, or of those prepared by others and annotated or emended by yourself, will also be of service, and may be forwarded, to be returned, if desired.

I am, Doctor, very respectfully, JNO. M. WOODWORTH,
Supervising Surgeon.

MANUFACTURE OF CAOUTCHOUC FROM MILK-WEED.—The *Canadian Pharmaceutical Journal* states that a company, having an authorized capital of \$100,000, has recently been formed for the above purpose at London, Ont. In one experiment, one thousand pounds of milk-weed were operated on, and it was found to yield four per cent. of caoutchouc. The process consisted in subjecting the plant to partial decomposition, heating by steam, and then treating by maceration with coal-tar naphtha. The benzine, holding the caoutchouc in solution, was then distilled, when the rubber was finally obtained in a solid form.

Correspondence.

LETTER FROM PHILADELPHIA.

PHILADELPHIA, August 17, 1874.

MESSRS. EDITORS.—Philadelphia is stagnant. Houses closed by fifties. The city emptied of those who have means and leisure. Contrary to the supposition which naturally arises when one considers the condition of the streets, the city is unusually healthy and the death-rate surprisingly small. To what is this owing where drainage and cleanliness may be represented by 0?

Dr. Weir Mitchell has recently received a translated copy of his "Injuries of the Nerves," from the French editor and translator of the work. In a preface of forty odd pages, Prof. Vidian (translator) alludes to Dr. Mitchell in terms warm with appreciation of the brilliant and original genius of the author. This unalloyed praise of an American medical author, and this eager reception and early translation of a medical book born in America, should be a source of deep gratification at home.

Here may follow, as a fitting sequence, details of Dr. Mitchell's treatment of locomotor ataxia, which I promised you last spring.

I have enjoyed frequent occasions of meeting Dr. Mitchell at his hospital for nervous diseases, where I have heard him discuss his method of relieving the disease in question, and much that I may say will, I believe, be an almost literal repetition of his remarks. I will also make use of a brief paper upon the "Influence of Rest in Locomotor Ataxia," which Dr. Mitchell published in the *American Journal of the Medical Sciences* for July, 1873.

It was his quickness of observation and ready power of generalization which led Dr. Mitchell to suspect the profound usefulness of rest in locomotor ataxia, and his paper presents several cases, the very striking results of which, as strong evidence of what rest will do in this disease, cannot be questioned. This paper gives details of five cases of locomotor ataxia of well-developed character, selected not because of any peculiarity in the history of the ataxia, but because of this apparently odd coincidence:—at a period of two to ten years after the initial attack, *every one of the five patients broke his leg*, one of them experiencing first a fracture of the thigh, afterward of the leg. These fractures enforced prolonged rest, during which the ataxia, in the first case, completely subsided, and failed thereafter to reappear. In the second case, the passive rest cut short the pain, which has never returned, and brought about an exceedingly indolent increase in the previously active ataxial symptoms. The third patient (he of the two fractures), up to the date of publication of his case (an interval of four years), enjoyed entire freedom from the disease, the march of which had previously been quite rapid. Case No. 4 broke his leg, went into complete repose, during which he disposed of the neuralgia, which did not recur; as to the ataxial symptoms, however, Dr. Mitchell could learn nothing, the case not having been in his hands. No. 5 suffered intensely painful attacks of neuralgia in connection with the ataxia; the left thigh became fractured, and the patient being at once put to bed, experienced only one attack of pain during the several weeks previous to publication of the case. A sixth patient, in the Orthopædic Hospital of Philadelphia, was a bad case of ataxia in the early stage. In order to test the correctness of his awakened belief in the value of absolute rest in ataxial neuralgia, Dr. Mitchell kept this patient several weeks in bed, no medicine being given until after the lapse of a month or more.

"The result, as to control of the pain," writes Dr. Mitchell, "has most surely been remarkable. Before going to bed, the patient could not walk without aid, nor stand with closed eyes even for a moment. The pain was inconstant, but never left him two days without extreme torment. Six weeks of almost absolute rest enabled him to stand for a few moments with closed

eyes, to walk unaided up and down the room, and to assure me of his entire freedom from pain after the seventh day in bed."

Dr. Mitchell thus concludes his suggestive paper:—

"I do not think these cases can be looked upon as mere coincidences of pain ceasing about the time of injury; I should rather conclude that exercise has power to flush the ganglia used in movement, just as thinking brings blood to the brain and raises its temperature, and that this afflux of blood, or at all events the mere functional activity, is in some way injurious and irritating to the diseased centres. This will seem at least a reasonable view, if we recall the influence of motion upon certain facial neuralgias. Even where there is no tender point, talking or chewing will often cause increase of pain, or awaken pain afresh. Thus, I have lately seen a case of frightful torment in the upper jaw, which was due to acid dyspepsia, and was cured when this state was relieved. The stomachal condition had created, however, a state of the nerve centres of the fifth nerve of such a character that if the patient attempted to talk or laugh it presently resulted in a severe fit of pain. Nor is this a very rare or merely curious example.

"Considering the posterior spinal ganglia and columns as being ready, in ataxia, to pass into the state which gives rise to pain, it seems likely enough that exercise may be efficient in bringing it on. Exercise does not only mean motion in a physiological view of its totality of results, but it also involves the passage centripetally of a host of impressions generated in the moving tissues, and of necessity passing through the central sensory ganglia and their related parts. The centres of motion and sensation are, therefore, active during movement, and are then alike excited, so that we may, with these facts in view, see why motion may excite sensory organs.

"It seems, then, that in the painful stage of locomotor ataxia, motion is probably injurious, and that rest in bed is for like reasons useful. Time, with future experience, can alone be relied upon to determine how general may be the value of some such mode of treatment of ataxia and ataxial pain, and how permanent may prove to be the result. I am perfectly assured, in my own belief, that rest will prove to be the best treatment for the early stages of ataxia; but if I were even less secure in my opinion, I should not hesitate to speak of it as a possible mode of relief, since so little of value has been offered in the way of cure, or even of partial relief in this long and distressing malady.

"It naturally occurs to ask why so many ataxics have chanced to break their limbs; and as to this I should answer, first, that no people are so awkward or fall so much, and next that, in some of the cases, it seemed to me that the habitual abruptness of the muscular acts had a share in the calamity, and that I have suspected, what has not yet been proved, that the bones in ataxics may suffer some impairment of their nutrition, and hence of their strength. Such was the case in Dr. Pennock's case, reported by Dr. C. Morris, where the lesion was sclerosis of the antero-lateral columns of the cord. But this is as yet purely speculative, however full of interest, and what I want to set forward prominently is that I have seen rest cure the neuralgia of posterior spinal sclerosis, and, apparently, in some cases, arrest the disease."

My notes represent Dr. Mitchell's latest views in regard to the treatment of locomotor ataxia, and are somewhat as follows:—

"No one need attempt the treatment of old confirmed ataxics. Catch them in the neuralgic stage, or at the onset of the attack, when eye and vesical troubles exist, and then treat them. For all, save old ataxics, I order *rest* (but that means *movelessness*), vegetable and milk diet, hypodermic injections of corrosive sublimate, nitrate of silver internally and boldly, watching the gums for the blue line which precedes skin-tinting, and which is, also, I may add, not permanent. I have used all forms of galvanism, and now employ it in the neuralgia of ataxia, but rarely in any other stage. During the neuralgia it is used as in facial (neural) pain, the position of the poles (that is the direction of the current) being of no account. I never *cure* cases. Does any one? Patients with ataxic symptoms get well; those having

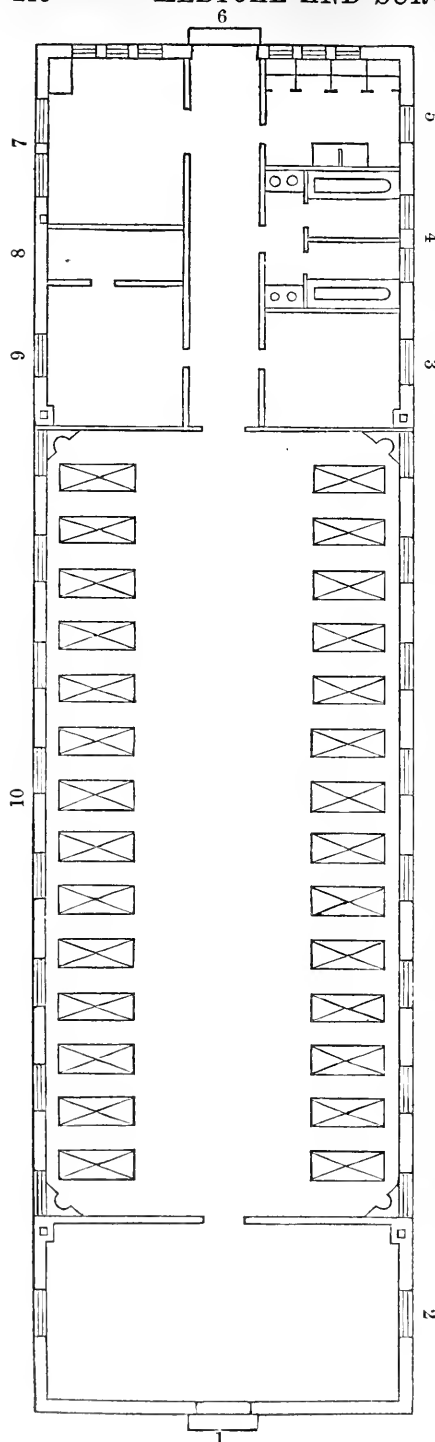
posterior sclerosis (of the cord) do not. The mere rarity of cures is proof that ataxy has not existed where recovery has been claimed."

It gives me pleasure to mention Dr. Mitchell in connection with a new enterprise, to which he is devoting an enthusiastic interest. I refer to a hospital which is to be erected by the managers of the Presbyterian Hospital of Philadelphia. The general plan is that which was employed in the construction of the one-story pavilion hospitals during our late war, and which have already been successfully imitated by the Germans in Leipzig, under the name of the "American Hospital." The plans and specifications of the projected hospital buildings include many improvements and modifications, suggested partly by the imperfections of the army buildings, but more especially by Dr. Mitchell (who has been a prime mover in the resuscitation of what is undoubtedly the best of plans for a healthful hospital), and by his co-workers, among whom the architect, Mr. Joseph M. Wilson, Engineer of Bridges and Buildings for the Pennsylvania Railroad, has been extremely active, lending his fertile intelligence, giving time and drawing up plans and specifications with no other remuneration than what he derives from the pleasure he finds in furthering the work. He will, if desired, also superintend the erection of the hospital. The Presbyterian Hospital has been favored, within the past few months, with legacies of such dimensions as have determined the managers to push the contemplated plan to completion, if I mistake not, within the coming year. Let me try to give you an impression of what the proposed buildings are to be.

The nucleate idea is a hospital entirely composed of one-story buildings. Each building will represent a single ward. Connected with the Massachusetts General Hospital, you have one or two wards thus arranged, but which, I believe, lack many of the healthful conveniences, as well as the utter simplicity of the proposed Presbyterian structures. You will observe that this simplicity, which, by the way, is the dominating feature of individual wards, is almost Spartan in character.

In attempting the description of a single ward, which will represent its fellows, I am happily able to include a ground plan, which I copy from a duplicate of the original plan, which was kindly furnished me by Mr. Wilson, the architect.

I will not give dimensions, since they may be seen in the plan which I draw, without regard to the scale of feet and inches. Taking one ward as a type of all: The building will be constructed of brick, will have double walls, with an interspace of four inches from ground support to roof. Hence the building will wear a protecting suit of brick within four inches of its own walls. The intervening cushion of air will act as a non-conductor, &c. The floor will be put in at an elevation of five feet from the ground, the subjacent space powerfully ventilated by large, open arches, which are to be constructed every few feet on both sides throughout the whole length of the building. The ground beneath the ward will receive a solid covering of asphalt. The floor will be made of narrow strips of hard Carolina pine, the cracks leaded, the whole to be oiled, and thus rendered water-tight, even as to the wood itself. Like the walls, the floor will be double, and the interspace (six inches in depth) deadened and made solid by a concrete filling. The ward will have rounded corners, above and below; hence no dust can collect. Each of the four curves will be supplied with an open, low-down grate, for purposes of ventilation. Besides these, the building will be heated by a system of hot water. Windows, twelve feet apart, will begin two feet from the floor and reach to within one foot of the ceiling; will be made four feet wide, and be composed of three sashes, the two lower of which will be run by weight and pulley, and the upper turn on a pivot, after the manner of a transom. The sashes will be single, but made so as to receive a *double* glazing. The ward will be fifteen feet high on the square, but twenty-three and one half feet to the ventilator. There will be no horizontal ceiling, the plan being to ceil the inner side of the roof with a plaster so dense as to be impervious to moisture. Outer surface of roof to be slated. Wooden trusses, corresponding to the angle of the roof, will be set eleven feet apart throughout the



length of the ward, and an equal number of straight, iron girders, twelve feet from the floor, will connect the opposing walls. According to the plan, the roof terminates in a ridge ventilator, inside width of which is four and one half feet, and which occupies the entire length of the ward. Drop openings in the ventilator, hinged at their lower sides, will be managed from below by pulleys. The whole arrangement resembles the system of ventilation used in the Pullman palace cars. In the ward there will be wainscoatings, no mouldings, no panels in the doors; the wood work will be well served with oil and shellac, the utmost simplicity observed, and every effort made to prevent infection by any disease whatsoever. Not an ounce of paint will be used in any direction.

The ward will be provided with fourteen beds on each side, with six feet space between their centres. The end rooms, viz., sitting-room, nurses' room, linen closet, operating and bath-rooms, kitchen, &c., will be horizontally ceiled. A very sensible feature will be the glass floors and backs of the urinals. Indeed, it seems impossible to suggest a convenience, or point to a single thing which has been forgotten in this endeavor to plan a hospital which shall possess an absolutely healthful condition, and be freed from endemics and infection. Drainage will, of course, be perfect. The ward kitchen is intended for special diet cooking. General cooking will be done in the centre building, the plan being to have the wards on either side and at the end of the grounds, and to devote the central building to committee and managers' rooms, dispensary, main store closets, main kitchen, &c. Patients will not be allowed to enter this building without special permission. Central

- 1 South entrance.
- 2 Sitting-room, 30 by 16 ft.
- 3 Kitchen, 11 1-2 by 10 ft.
- 4 Bath and lavatories, 11 1-2 by 14 ft.
- 5 Water-closets, 11 1-2 by 11 ft.
- 6 North entrance.
- 7 Operating-room, 11 1-2 by 16 ft.
- 8 Linen closet, 11 1-2 by 5 ft.
- 9 Nurses' room, 11 1-2 by 14 ft.
- 10 Ward, 30 by 38 ft.

buildings and wards will have a railroad connection. The only ornamental portion of the hospital will be the front of those buildings whose end faces the street, and this will be simple. It is easy to see that the buildings will not only be severely simple and economical, but convenient, and, above all, healthful. The recent proposition to erect cheap wooden hospitals and destroy them by fire at the end of one or two years, becomes insignificant when compared with this better plan. It seems odd that Germany should have caught up and put into successful operation the hospital system which originated in America before we ourselves had made it permanent.

UNGENNANT.

LETTER FROM LONDON.

LONDON, July 25, 1874.

It has not fallen to my lot to hear much medical news in London. There is much interest taken in the inquest on the unfortunate "flying man," who was killed in an attempt to descend from beneath a balloon. With us, it might be argued that it was his own affair, or at most concerned others only inasmuch as they run the risk of being fallen on; but here it is held that the law should protect a man's life in spite of himself. To be consistent, the same law should protect the unwilling victims of chloroform, and perhaps it will in time, for I understand that ether is slowly gaining ground. The fire department has been strengthened in order to cope with the threatened conflagration of the Thames from a correspondence on the "woman question," carried on in the *Times* and *Saturday Review*. Desirous as our readers must be to hear the same arguments for the ninety-ninth time, my regard for the safety of the Frog Pond forbids my repeating them.

The museums present certain common merits and defects. Among the former is the fact that they are not mere depositories of specimens, but are arranged for the convenience of the students who are constantly seen in them at study. At Guy's, there is a long row of tables supporting beautifully executed models of dissections. Nothing, of course, can take the place of the real subject, but it is, nevertheless, a great advantage to have models always on hand. They are far superior to plates. A class of preparations that can hardly be praised too much is to be seen at St. Bartholomew's. It consists of small dissections of important and difficult regions, imbedded in plaster at the bottom of shallow vessels containing alcohol and covered by a plate of glass. They are beautifully clear and instructive. A fault common to these museums, and in a less degree to St. Thomas's, is the way in which specimens of normal and pathological anatomy are mixed together, and with those of comparative anatomy, apparently without method.

The Hunterian Museum stands by itself, and can hardly be judged by the same rule as the others, for it represents anatomy in its widest sense. Nothing can be better than the various series showing the different forms of corresponding bones among the vertebrates; and this system is not applied to bones alone, but to almost all the internal organs and those of special sense. The collection of whales is glorious. One would like to be an anatomical Jonah and be swallowed by each in turn. Among the preparations of human anatomy, several muscular dissections preserved in spirits deserve especial mention; the color, of course, is lost, but the size and shape of the muscles are almost unchanged. I have seen very few frozen sections in Great Britain, but those, as a rule, were good and well mounted. Corrosion preparations, on the other hand, though more numerous, are of little merit; this, in many cases, may be the result of their age.

T. D., JR.

"I KNOW of no more wholesome state of mind for the investigation of truth than the ever-present consciousness of the possibility of error."—*West's Harveian Oration*.

Medical Miscellany.

THE fifth Cincinnati Industrial Exposition will be opened on Wednesday, September 2, and continue until Saturday, October 4th.

THE third semi-annual meeting of the New Hampshire Medical Society will be held on Tuesday and Wednesday, September 1st and 2d, at the Oceanic House, Star Island, Isles of Shoals. The Vermont and the North Essex (Mass.) Medical Societies have accepted invitations to join them in the excursion; also the New Hampshire Pharmaceutical Society, and a full attendance of members and ladies is expected.

ACCORDING to the *Medical Times and Gazette*, the patient in whom Billroth performed extirpation of the larynx with such success, an account of which appeared in a former number of this JOURNAL, has since died. The operation was performed on the 31st of December last, and death occurred on July 7th. The cancer reappeared locally soon after the patient's return to his home in Bohemia.

MUNIFICENT BEQUESTS.—A gentleman of Milan, named Ponti, has left his property, amounting to 825,000 francs (£33,000) to the three Academies of Science in London, Vienna and Paris, and to the General Hospital in Vienna, the last-named institution being entitled to any increase beyond the original sum. As the value of the property is now estimated to be £72,000, the hospital is likely to receive a large share. It is said, however, that the relatives of the deceased intend to oppose the will on the ground of the mental incapacity of the testator.—*London Medical Record*.

NOTES AND QUERIES.

WHY cannot apothecaries understand that anisette (a French cordial) is not the essence of anise, or spirits of anise (a vile solution of oil in alcohol), and not substitute the latter for the former in recipes sent to their establishments? Sooner or later, if they continue the reprehensible practice, a "misadventure" will bring discredit upon them, as well as danger to the patient, or death, if of infantile age. Apothecaries should *never* substitute any other drug for that directed without the knowledge and consent of the physician.

A SUFFERER.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending August 15, 1874.

Boston, 220; Worcester, 34; Lowell, 31; Milford, 5; Chelsea, 12; Salem, 11; Lawrence, 20; Springfield, 10; Lynn, 24; Gloucester, 11; Fitchburg, 5; Newburyport, 16; Somerville, 14; Fall River, 46; Haverhill, 11; Holyoke, 13. Total, 483.

Prevalent Diseases.—Cholera infantum, 162; consumption, 52; diarrhœa and dysentery, 25; typhoid fever, 17.

Boston reports 85, and Fall River 18, of the deaths from cholera infantum.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 22, 1874. Males, 93; females, 100. Accident, 5; apoplexy, 3; inflammation of the bowels, 5; disease of the bowels, 1; bronchitis, 1; stone in bladder, 1; congestion of the brain, 1; disease of the brain, 4; cancer, 2; cholera infantum, 56; cholera morbus, 2; consumption, 19; convulsions, 10; debility, 6; diarrhœa, 5; diphtheria, 2; dropsy of the brain, 3; drowned, 1; dysentery, 3; epilepsy, 1; scarlet fever, 1; typhoid fever, 7; gastritis, 1; disease of the heart, 6; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 3; marasmus, 9; old age, 4; paralysis, 1; peritonitis, 3; premature birth, 4; phlebitis, 1; puerperal disease, 2; pyæmia, 1; suicide, 2; scrofula, 1; scalded, 1; tabes mesenterica, 1; teething, 2; whooping cough, 3.

Under 5 years of age, 118; between 5 and 20 years, 14; between 20 and 40 years, 24; between 40 and 60 years, 15; over 60 years, 22. Born in the United States, 160; Ireland, 25; other places, 8.

THE

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THURSDAY, SEPTEMBER 3, 1874.

[No. 10.]

Original Communications.

SOME ADDITIONAL REFLECTIONS UPON THE LATE EPIDEMIC OF CEREBRO-SPINAL MENINGITIS.

By J. BAXTER UPHAM, M.D., of Boston.

Read before the Massachusetts Medical Society, June 2, 1874.

GENTLEMEN,—It fell to my lot in the last year to investigate, with some care, the disease which forms the subject of this paper, during its prevalence in an epidemic form in various parts of the State. The purpose of my examination then was to inquire more especially into the circumstances attendant upon the advent of the disease, with a view to ascertain, if possible, its origin or supposed cause. In the course of this inquiry, I obtained, from personal researches and a somewhat extensive correspondence with the Fellows of this Society, a mass of facts which I have thought might perhaps be of some further use to the profession. Under this idea, I have selected the most complete of the cases comprised in the tabular returns received, with a view to a more careful analysis of some of their important features. It will be my aim not to repeat what I have so recently advanced upon this subject, although I must, necessarily, traverse, to some extent, the same ground.

And, in reviewing the labors of my honored predecessors in this field of research, I am struck with the superior facility for obtaining accurate statistical information which we of the present generation enjoy. The able and indefatigable committee, who were charged with the inquiry into the causes and history and modes of treatment of the first epidemic of this disease, of which we have record, in Massachusetts—that of 1810—framed with great care and conscientiousness a series of questions, under seventeen heads, which were sent in behalf of the Massachusetts Medical Society to all its Fellows and other gentlemen of character, in whose vicinity the disease had prevailed. They were published, also, in the principal newspapers of the day, in order (as the report says) that any persons possessing useful information on this subject might be induced to communicate it.

In reply to this circular, the committee affirm that they received communications from twelve persons, all Fellows of the Society; and, likewise, indirect communications from several gentlemen of respectability in the State of Connecticut. And upon this somewhat meagre return, together with the few cases which the members of the committee themselves were able to inspect, was founded that most interesting and instructive Report on “Spotted or Petechial Fever,” which appears in the second volume of the Medical Communications and Discussions of this Society, under date of June 21, 1810.

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In contrast with the above, the circular issued under the auspices of the Massachusetts State Board of Health, in the month of May, one year ago, brought replies from about two hundred physicians, representing seventy-seven towns and cities, and containing the data, more or less complete, of upwards of five hundred cases of the disease. And I am happy to improve the opportunity, which I may not again have, to tender my sincere thanks to those members of this Society—many of whom are now before me—who have responded so fully and so promptly to the demands thus made upon their time and patience. The consciousness of duty well performed, and the satisfaction of aiding in the elucidation of an obscure and terrible disease, must be your abundant reward.

But to my subject:—It is well known that the disease we are now considering has prevailed to a limited extent, within the last few years, in our own and several of the adjoining States. Dr. Parks, in the able and exhaustive report made to this Society in 1866, has given us a detailed account of all the cases he could collect in the eight or ten years preceding that date. Since 1870, it would appear that the number of cases rapidly increased, till they culminated in the somewhat extensive epidemic of 1873.

I am convinced that I have been able to get together only a minority of the cases that occurred in that year, and of these the data, as a whole, are by no means as complete as could be wished. But the returns are widely distributed over the State, and may be said to fairly represent the ordinary phenomena of the disease. The *name* which has, of late years, been given to this affection—that of cerebro-spinal meningitis—conveys the idea of its essential nature, as manifested in its prominent symptoms and revealed by *post-mortem* inspection; and it points, likewise, to the principal indications to be aimed at in its treatment. It was not possible, within the scope of my communication to the State Board of Health, to more than glance at the general characteristics of the malady in question—to give, in briefest form, an idea of its history, its habits and progress, and gain some hints for prophylactic management in times of its epidemic prevalence.

It will be my object at this time more especially to present a condensed view of the symptoms and pathological manifestations of the disease, based upon the series of cases I have selected, and to consider a few of the many modes of treatment adopted. The number of these selected cases is 315, of which 173 recovered and 139 died,* the ratio of mortality being $44\frac{5}{7}$ per cent. This percentage is almost precisely the same as that of the 517 cases comprised in my recent report to the State Board of Health, and it is interesting as containing, so far as it goes, the statement, already published, that the recent epidemic was a mild one in comparison with many others on record.

In the tabular statements to which I have alluded, the symptoms are grouped under two heads, according to the time of their appearance, whether in the earlier or later stages of the disease. In this way, I believe we are more likely to obtain, from a multitude of observers, such minuteness and particularity of record as will conduce to a more reliable analysis of this important chapter in the history of any epidemic disease. And in regard to these symptoms, as I have elsewhere said, they exhibit great diversity of manifestation; it cannot be expected in any given case that a majority, even of those which legiti-

* Three cases were incomplete.

mately belong to the disease, will be present. This has, no doubt, tended greatly to obscure its diagnosis, on the part of those especially who are not familiar with the affection, who have learned its habits from books mainly. Hence it is important to find out, if we can, the most constant and prominent of the signs and symptoms which pertain to the affection.

The relative frequency of these symptoms, as applicable to the list I have in hand, may be seen by the following tables:—

Table showing the Relative Frequency of some of the more Marked Symptoms in the Early Stages of 315 cases of Cerebro-spinal Meningitis indicated in the foregoing series.

NOTED IN HOW MANY CASES.	EARLY SYMPTOMS.
61	Chills.
223	Headache.
44	Nausea.
147	Vomiting.
102	Pain in nape of neck.
86	Delirium.
64	Irregularity of the pulse.
57	Pain along the spine.
50	Stiffness of muscles (of neck especially).
49	Retraction of head.
40	Spasms or convulsions.
39	Stupor or drowsiness.
37	Anomalous pains.
30	Opisthotonos.
29	Restlessness.
27	Tenderness over spine.
24	Hyperæsthesia.
19	Prostration.
18	Muscular twitchings.

Table showing the Relative Frequency of the more Prominent among the Advanced Symptoms in 315 cases recorded in the preceding series.

NOTED IN HOW MANY CASES.	ADVANCED SYMPTOMS.
74	Headache.
84	Delirium.
75	Retraction of head.
62	Opisthotonos.
56	Spasms or convulsions.
54	Coma.
54	Prostration.
46	Irregularity of the pulse.
39	Stupor.
36	Pain in nape of neck.
34	Rigidity of muscles (of neck especially).
34	Dilated pupils.
34	Anomalous pains.
32	Paralysis.
31	Hyperæsthesia.
31	Pain in spine.
55	Petechial spots.
26	Restlessness.
20	Strabismus.
15	Herpes.
15	Deafness.

It must be remembered that I am only attempting to show, by this analysis, the comparative frequency of such symptoms as are sufficiently marked to attract the attention of observers in the series of cases I have adduced. Unfortunately, we are, for the most part, without the negative evidence which, if obtained, would have added greatly to the interest and value of the tables. We can only take them as we find them.

It appears from these tables that chills, headache, nausea, vomiting, pains at the nape of the neck, delirium, irregularity of the pulse, stiffness of the muscles (of the face or neck more particularly), retraction of the head, spasms or convulsions, stupor or drowsiness, and anomalous pains were among the most constant of the early symptoms, being noted respectively in 61, 223, 44, 147, 102, 86, 64, 57, 50, 49, 40, 39 and 37 cases; and, in the later stages, the symptoms and phenomena more frequently observed were headache, delirium, retraction of the head, opisthotonos, spasms or convulsions, coma, irregularity of the pulse, stupor, pain in nape of neck, rigidity of muscles, dilated pupils, anomalous pains, paralysis, hyperæsthesia, &c., these symptoms being noted in 74, 84, 75, 62, 56, 54, 54, 46, 39, 36, 34, 34, 34, 32 and 31 cases, respectively.

It may be interesting to append here a tabular statement, showing, in condensed form, the relative frequency of these more prominent symptoms as noted *at some period of the disease* in all the recorded cases, as follows:—

Table showing the Relative Frequency of the Prominent Symptoms noted at some Period of the Disease in the cases recorded in the preceding series.

NOTED IN HOW MANY CASES.	PROMINENT SYMPTOMS.
61	Chills.
238	Headache.
147	Vomiting.
132	Delirium.
102	Pain in nape of neck.
102	Retraction of head.
92	Irregular pulse.
90	Pain in spine.
79	Opisthotonos.
70	Rigidity of muscles.
68	Spasms or convulsions.
66	Stupor or drowsiness.
61	Anomalous pains.
58	Coma.
57	Prostration.
55	Petechial spots.
51	Restlessness.
46	Nausea.
44	Dilated pupils.
41	Tenderness of spine.
35	Paralysis.
34	Hyperæsthesia.
27	Muscular twitchings.
22	Herpes.
22	Irregular breathing.
21	Deafness.
20	Strabismus.
13	Contracted pupils.
12	Intolerance of light.

As I have before said, it is not to be supposed that even in a majority of the cases from which these tables are deduced all the important symptoms of the disease have been set forth. I do not claim, therefore, for these numerical statements anything more than a comparative exhibition of the facts and phenomena that more particularly arrested the attention of the physician in his earlier and later visits. Nor can we attach any very great value to such chronological statistics in a disease of so uncertain duration. Its onset is for the most part sudden and unheralded, and, as will appear from an inspection of the returns, the physician's services are generally demanded at once. His first visit dates, usually, within a few hours from the time of the attack. I have classed the early symptoms, therefore, among those which appear in the first three or four days of its course. With this explanation, the summary I have given will, I hope, afford some aid in the prompt diagnosis of this oftentimes obscure affection.

Before leaving this part of my subject, I will dwell somewhat upon a few of the symptoms above enumerated. It will be seen that the disease is not uniformly ushered in by chills or rigors, as is commonly the case with purely febrile affections; and my own experience has been that when such symptom is present it is rather a *sense of chilliness* than a well-defined chill. Headache is an early and an almost constant accompaniment, and it is generally of the severest kind. It is variously denominated in the preceding returns as "intense," "very severe," "excruciating," "tearing," "horrible," &c. &c. The delirium may be severe, but it is oftener than otherwise of a kind which, for want of a better term, I will call superficial—by which I mean that the patient can usually be roused so as to answer questions logically, even in the worst cases. There are, of course, exceptions to this rule. Vomiting is an early and pretty constant symptom, with children especially. Pain in or about the nape of the neck, it will be seen, is noted as among the most frequent of the early symptoms. This is oftentimes accompanied with a peculiar sense of stiffness and of tenderness to the touch, and with that other characteristic, oftentimes pathognomonic, sign, retraction of the head. Conjoined with these last, may usually be found the rigidity of muscles referred to in the tables. Irregularity of the pulse is a marked symptom. It indicates, of course, the erratic action of the heart, which has many times sadly confused the diagnosis. So closely, indeed, does this latter symptom simulate valvular disease of the heart as to deceive the most wary. A labored, panting respiration is very naturally joined with the symptoms just mentioned. And I cannot help thinking that it must have existed in more instances than the preceding tables would indicate. Under the head of anomalous pains may be classed the painful sensations alluded to by various writers on this disease, which come on, for the most part, suddenly and unexpectedly, and affect the arms, legs, feet, hands, the stomach or bowels, the joints, &c. &c., without seeming connection or cause. We might speak, also, of anomalous *motions* as pertaining to this disease. One patient is spoken of as indulging in "small, convulsive movements, such as no Christian ever made." Another is represented as striking and spitting at his father. Others are described as "clutching," "kicking," "gyrating," &c." The petechial spots, which are reported as having been present in a limited number of cases, are generally of a hæmic character, and resemble

those seen in the worst cases of typhus. Restlessness and jactitation, with hyperæsthesia, do not assume that prominence in the foregoing tables which my own experience has given to them; and it is quite likely that, in the greater prominence of more important symptoms, these may have passed unnoticed. There is oftentimes great nervous agitation, and a dread of being moved or even touched. The bowels are usually torpid; indeed, constipation is very generally alluded to as the ruling condition in the preceding tables. The temperature is not given as often as could be wished, and when indicated, the period of the day or the stage of the disease has not been particularized. In several cases, however, a very high temperature has been noted, as high as $108\frac{1}{10}^{\circ}$ by Dr. Wm. Read, and in one instance (that of a boy eight years of age), by Dr. Ira Russell, as high as 110° .

We come now to the anatomical characteristics of the disease, which, as might be inferred from the symptoms above detailed, belong mostly to the brain and spinal cord. In fifteen cases only were *post-mortem* examinations obtained. But, so far as they go, they tend to confirm the generally received pathology of this affection. In twelve cases, there was either purulent effusion or a deposit of lymph on some part of the surface of the brain, most often at its base—in one instance, “like fibrine” in substance. In seven cases, there was an increased quantity of fluid in the ventricle, or beneath the arachnoid. In seven cases, there was congestion of the membranes to a greater or less extent. There was a deposit of lymph upon the spinal cord in six cases. In three cases, there was apparent suppuration of the cord. Opalescence of the arachnoid was manifest in three cases; and in one case the membranes at the base of the brain and spinal cord were thickened and adherent. It is much to be regretted that so few autopsies could be obtained. But such as we have will afford a fair opportunity to judge of the average character of the anatomical lesions. And they tally, in the main, with my own observations in other and more limited epidemics of the same kind. According to my former experience, however, it sometimes happens that the most undoubted manifestations during life leave no perceptible trace after death; more especially is this to be anticipated in cases sudden and violent in their accession, and of brief duration.

In reviewing the tabular statements of the list of cases to which I have called attention, I have studied with much care the record of treatment. And I am struck with the manifold and various plans of therapeutic management which have been adopted, and the evident earnestness and faith with which, sometimes, very opposite methods are advocated. Indeed, almost every known mode of treatment, in its every kind and degree, seems to have found its representative here. Thus: one physician, of high standing and influence, gives morphia, Dover’s powder, tartrate of antimony and aconite, with calomel and opium, but “*no stimulants*,” and brings his patient through in about two weeks with a good recovery; another equally eminent practitioner, in the same town and in the same space of time, reports a perfect recovery upon beef-tea and milk, quinine, carbonate of ammonia and brandy. In the practice of a Boston physician, two cases having the same symptoms, were treated with ergot and the bromides early; later, with opium, quinine and wine, conjoined with milk diet and occasionally a warm bath. The result was, in the one case recovery,

in the other death, in about the same period of time. Seven out of nine patients died in the hands of another physician, who assiduously and conscientiously administered opiates and the iodides, together with tonics and stimulants, and counter-irritation to the parts particularly affected. An eminent country practitioner, who had several cases under his charge, reports that he faithfully administered belladonna, ergot, quinine, brandy, wine and iron throughout the course of the disease and found them in every instance to disagree. Another, in speaking of a three months' case which was still pending, tells us that after the bromide of potassium and the application of cold to the head and neck, and irritants to the spine, added to abundant nourishment with milk and eggs, beef-tea, &c. &c., for the last month his patient had "taken no drug," for no treatment, he adds, seemed to be of any avail; and, on the next page, he continues, in grim despondency, "*result, probably fatal.*"

Another adopted a thoroughly rational, expectant treatment; the bowels were kept open by mild laxatives, pain and restlessness were relieved by bromides and opium; irritation was applied to the nuchæ and upper portion of the spine, and, in later stages, quinine, iron, stimulants, with nourishing diet, were given, *secundum artem*. The result in a majority of his cases was *death*. Another sums up his treatment in the one word, "stimulants," and his next record reads as follows: "*No autopsy was permitted.*" Still another puts under the head of treatment the designation "homœopathic;" the inevitable result was "*death.*"

Seriously, gentlemen, I am puzzled, in the abundant experience which the late epidemic has given us, to discover what course of treatment promises the best. At the Massachusetts General Hospital, the iodide and bromide of potassium, ergot, quinine, with milk and beef-tea, formed the staple management. The same general plan, with the addition of ice to the head and croton oil to the nuchæ, with belladonna and ergotine, constituted the treatment at the Boston City Hospital. A well-known physician of this city puts great reliance upon the exhibition of ergotine and the extract of belladonna, in the proportion of a grain of the former to one tenth of a grain of the latter, for adults, administered every four hours during the acute stage. This combination, in connection with tonics and stimulants, a good diet and the application of cold to the head and occasional irritants to the nape of the neck, was followed by recovery in a large majority of his cases. One gentleman reports a highly favorable result in a series of ten cases treated by the application of hot water to the head, blisters to the nuchæ, a sinapism to the spine and hot fomentations to the feet, followed, at a later stage, by the administration of bromide of potash, the fluid extract of ergot, aconite, stimulants and nourishing diet. Another, who had a considerable experience in the disease, resorted to the old-fashioned application of the "hemlock sweat," as it was administered by our fathers a half century ago, and, as he thinks, with positive advantage. Several observers have thought they saw a marked improvement consequent upon the application of irritants, as above described, to the nuchæ and spine.

It would appear, from the foregoing summary, that no positive plan of therapeutic management has been developed by the recent epidemic. This coincides with my own previously expressed views as derived

from a personal experience of the disease in military camps and hospitals, and confirmed by study and observation elsewhere. Yet, after all, I believe that something can be accomplished in the way of treatment. Bearing in mind the essential element of the disease, a morbid poison acting primarily upon the vital fluid and affecting secondarily and rapidly the meninges of the brain and spinal cord more especially, giving rise to symptoms and phenomena which simulate, while they are not identical with, inflammatory action in these parts, the consequent exhaustion of the vital powers and great perversion of the nerve force, as manifested in the irregular action of the heart, the labored breathing, the restlessness and jactitation and extreme sensitiveness of the surface; remembering, also, the material lesions which are so generally revealed on *post-mortem* inspection, the indications for a rational treatment would seem to be these:—

1. To husband the strength.
2. To combat the tendency to congestion of the brain and spinal cord.

3. To mitigate the intense pain.

4. To calm the nervous excitement.

5. To nourish and support the system till the exuded morbid products can be removed by the kindly offices of nature, and to minister, in the meanwhile, by all the ways at hand, to the comfort and relief of the patient. The choice of means for the fulfilment of these manifest indications I leave to the judgment and good sense of those who hear me.

I am aware, gentlemen, that much more might be said upon the subject of this epidemic, and that the analysis of the tabular returns might be pursued to advantage in other directions than those I have attempted; but I have already reached the limit set forth in my paper at the outset, and I will trespass no further upon your patience.

CASES WORTH KNOWING OF.

By CHARLES E. BUCKINGHAM, M.D., of Boston.

I.—I was called in haste, shortly after 10, P.M., to see a young man 19 years old. He went to bed about 9 o'clock. A gentleman occupying the next room said that he "was roused by hearing him choking and groaning. Went to him, and found him in a sort of crazy condition. Shortly after, vomited what appeared to him to be blood. Could not get him to speak, and he was apparently unconscious." He was walking him about the room. The patient had been out of business for some time. During the preceding afternoon had been to a military review, and ate supper as usual. The sister said that he had threatened to take laudanum. On examining the matters vomited, I found the bloody matter to be strawberries, eaten for supper, and mixed with baked beans eaten at breakfast. There was no smell of laudanum, nor of anything else, except acid from a foul stomach. His pulse was 80. Skin cool. Pupils largely dilated and not responding to light. Resisted all attempts to see into mouth, and, of course, to give him anything by that means. I succeeded in pouring into his stomach, through one nostril, a mixture of a drachm of powdered ipecac in a cupful of warm water. Shortly after, he vomited, and was induced to drink more of the ipecac

mixture. Ten minutes later, he vomited more beans, and became perfectly conscious, talked and laughed. The pupils at once acted normally.

Twenty-five years ago, I was called to the boy's father, in very much the same condition, the effect of eating the peel of an orange. The remembrance of that case, and the striking resemblance of this to it, was a great aid in diagnosis. The boy's talk about taking laudanum was merely thoughtless talk. It was one of those peculiar secondary nervous affections, which, if he had been a teething child, would have probably been a case of convulsions; if a man of seventy, apoplexy and death.

II.—On Saturday, a boy of ten years took about five grains of iodide of potassium, at 10.45, A.M. About noon, began to have coryza and to sneeze. At 2.45, P.M., he repeated the same dose. Had dyspnoea and aching of his lower molars. About 4, P.M., undressed and went to bed, with headache and nausea. I saw him soon after 5, P.M. Coryza excessive; both eyes very much swollen and the left one nearly closed. Face flushed. Tongue clean and very moist. Both parotids very much swollen. Moderate headache. Pulse 100. Dyspnoea excessive. Gave him one twenty-fourth of a grain of sulphate of morphia at 5.45, at 6 and 6.20, P.M., at which time his pains were diminishing. The morphia was repeated forty minutes later. He slept very much, and awoke in the morning relieved of all the discomfort, except that in his eyes, which had nearly disappeared twenty-four hours later.

On placing the hand over the cardiac area, in many people with thin chest walls, we can distinctly perceive the alternate movements of auricular and ventricular systole, with each corresponding diastole; and, of course, we can also readily appreciate any pathological change in their movements. Great increase in their force indicates hypertrophy; but a diminution of that force is by no means to be regarded as a certain indication of atrophy, dilatation without hypertrophy, or even of cardiac debility from any cause—though it may be a sign of one or other of these phenomena, as well as of great pericardiac effusion, pulmonary emphysema, or even simple thickening of the thoracic walls. In many of these cases, especially in pericardiac effusion, but more or less in all, the cardiac shock may be rendered perceptible to the hand by causing the patient to sit up and lean well forwards. In this case, the readiness with which it can be appreciated, and the position in which it is felt, must be carefully noted. Forceful pulsation above the fourth rib, and within the cardiac area, may possibly be aneurismal, but most commonly depends upon dilatation and hypertrophy of the appendix of the left auricle. Forceful pulsation, chiefly to the left of the cardiac area below the fourth rib, with depression of the apex-beat, indicates dilatation and hypertrophy of the left ventricle; while pulsation beneath the lower part of the sternum, with disappearance of the apex-beat, reveals dilatation with or without hypertrophy of the right ventricle, the extent of dilatation being, to some extent, measurable by the amount of epigastric pulsation, the degree of hypertrophy being denoted by the force of the pulsation. When the whole heart is hypertrophied and dilated, a more or less violent shock may be felt over the whole of the cardiac area; and where the hypertrophy is great, the shock may be double—the first forcible and systolic, the second less forcible and diastolic—the result of the rebound of the enlarged heart from the posterior thoracic walls.—“On the Diagnosis of Disease of the Heart,” by GEO. W. BALFOUR, M.D.—*Edinburgh Medical Journal*, June, 1874; *Medical Times and Gazette*.

Progress in Medicine.

REPORT ON ANATOMY.

By THOMAS DWIGHT, JR., M.D.

ANOMALIES.

THE following are selected from the great number of irregularities reported.

T. Zaaïjer (*Archives Néerlandaises des Sciences Exactes et Naturelles*, Tome 7, Livraison 5) describes an extremely rare anomaly of the first and second ribs, in which, on the right side, the first rib ended, without a cartilage, more than one inch from the sternum, and rested on a process projecting upward from the second rib, the adjacent surface being covered with cartilage. Another process, directed upward, arose from the sternum, and was connected by a fibrous band with the end of the first rib. The same observer records an instance of a *radio-carpo-metacarpal* muscle arising from the lower part of the radius and ending tendinously on the trapezium and in the annular ligament, as well as by an aponeurotic expansion in the bases of the second, third and fourth metacarpal bones.

Professor Curnow (*Journal of Anatomy and Physiology*, May, 1874) describes two cases of the not very uncommon *cleido-occipital* muscle, going from the clavicle to the occiput, which were remarkable by the presence of fibres coming from the sternum and crossing the *sterno-cleido-mastoid*. He describes, also, a very curious *supra-costalis*, arising from the upper border of the third rib and passing up under the pectorals, and behind the clavicle and the subclavian vessels to the anterior tubercle of the transverse process of the fourth cervical vertebra, where it joined the *scalenus anticus*. It gave off in its course a few fibres to the *scalenus medius*. Curnow has seen a *crico-hyoid* muscle, of which there is but one previous case on record. It occurred on the left side of a male larynx, extending from the upper border of the cricoid cartilage to the lower border of the hyoid, just internal to the larger horn. It was quite distinct from both the *crico-thyroid* and the *thyro-hyoid*.

Construction of the Dark or Double-bordered Nerve Fibre.—By Dr. H. D. SCHMIDT, of New Orleans. (*Monthly Microscopical Journal*, May, 1874.)

Dr. Schmidt concludes his paper as follows: "In finally summing up the results of my researches regarding the structure of the double-bordered nerve fibre, this will be found to consist of the following parts: 1, of the true nerve fibre, the so-called axis cylinder, consisting of a bundle of *granular fibrils*, enclosed within a distinct sheath of their own; 2, of a semi-liquid substance, the *medullary layer*, surrounding the axis cylinder; 3, of the *fibrillous layer*, consisting of very fine, delicate and smooth fibrils, and surrounding the medullary layer; and, 4, of the *tubular membrane or external sheath*, a thin, structureless and elastic membrane, enclosing all the other parts. Whether, now, the thirdly-named part really exists in the living nerve fibre, or whether it is only produced by coagulation, it must be decided by other, more accurate histological researches than those hitherto made."

Dr. Schmidt shows great patience and ingenuity, but we regret that we must criticize his methods, and decline to accept his results. It is not by separating the bundles of a large nerve like the sciatic of the frog, even without removing it, that nerve fibres will be found in their normal state. The author is disposed to doubt that in the living tissues the nerves appear as single, outlined, homogeneous fibres, a fact which, however, must be looked upon as established.

OSTEOLOGY.

The Sacrum.—An inaugural thesis on this bone was presented at Paris, by Bacarisse, in November, 1873, which, though needing confirmation on several points, is of considerable value. After a general description of the bone, the author discusses the frequency of its consisting of six instead of five vertebræ, and finds that it occurs in one-third of all cases. This is not due to the fusion with the sacrum of either a lumbar or a coccygeal vertebra, but to the presence of a transitional one between the lumbar and sacral regions. This vertebra is found to articulate more or less extensively with the ilium, and to be more or less coössified with the vertebra below. The promontory of the sacrum, namely, the part which constitutes the projecting, posterior border of the superior strait of the pelvis is formed in the sacrum of six vertebræ, usually by the upper border of the first vertebra, but occasionally by that of the second. As already stated, about one-third of the sacra examined consisted of six vertebræ, but the sacra of this kind comprised nearly one-half of the male ones, and not quite one-quarter of the female ones. Should the lower part of a sacrum be wanting, the number of component vertebræ may, nevertheless, be ascertained by drawing over the front of the bone a line connecting the lower ends of the auricular surfaces. If this line pass above the middle of the third space, the sacrum consists of five vertebræ; if below, of six.

The author then considers the effect of race and sex on the shape of the bone, but we will notice only his results with Europeans. He measures the breadth of the base of the bone above, on front and behind, as well as the distance between the lower ends of the auricular surfaces and the length. Taking first the sacrum of five vertebræ, he finds that all these measurements are absolutely greater in the male than in the female, except that of the breadth of the front of the base. When the length equals the breadth, we may consider the bone male. In woman, the breadth of the anterior border of the base is more nearly equal to its greatest breadth than in man; when the latter exceeds the former by as much as one centimetre, the bone is male. In woman, the anterior breadth of the base is much greater than the posterior. The breadth between the lower ends of the auricular surfaces is greater in the female than that of the posterior border of the base, but the excess should equal one centimetre to make the sign of value. On the other hand, if the latter dimension equals or exceeds the former, the bone is surely male. Bacarisse states that the curve of the anterior surface of the sacrum is more pronounced in the female than in the male, but he does not give this subject the attention it deserves. Though the proportions of the sacrum of six vertebræ are not quite the same as those of five, most of the above rules hold good.

Bibliographical Notices.

A Treatise on Food and Dietetics. By F. W. PAVY, M.D., F.R.S. Philadelphia: Henry C. Lea. 1874.

IN the volume before us, the author has brought together and presented in a very readable form a larger amount of information in regard to food than has appeared in any similar work. The first part of the book is devoted to remarks on the dynamic relations and the origination of food. Although the statements and explanations in this portion of the book are, as a rule, in accordance with the teachings of the most advanced science, yet it seems that on certain points the author's ideas are not characterized by that clearness and precision which are so important in treating questions of this sort. We find, for instance, "force" defined as "the power of producing energy," and from the context it is evident that the author regards "force" and "potential energy" as synonyms, though the terms, as used by modern physicists, have very different significations. Again, in considering the force-producing value of various alimentary principles, the author seems to regard oxidation as the only source of force. Thus, he describes the nitrogenous constituents of the food as being "broken up—1st, into a nitrogenous portion—urea—which is eliminated as useless, and, 2d, a hydrocarbonaceous residue which represents capacity for force-production." The force which must be set free by the conversion of complicated albuminoid substances into the comparatively simple urea is here entirely disregarded.

The position which the author early took in opposition to Bernard's theory of the glycogenic function of the liver, has apparently led him to ignore a great deal of the work by which, in recent years, our knowledge of this function has been so much increased. He still asserts "that there is no appreciably recognizable destruction of sugar anywhere effected within the circulatory system," and, unwilling to admit that glycogen can be normally changed into sugar, speculates upon the possibility of its being changed into fat. With this exception, the description of the digestion, assimilation and physiological uses of the alimentary principles is excellent, and deserves higher praise than is bestowed by saying that it is the best in the English language. The discussion of the relation of nitrogenous food to muscular exercise is admirable, and includes an excellent criticism of Flint's observations on Weston, the pedestrian. The brief account of the alcohol question is also extremely clear and well written, and the conclusions arrived at are all that are justified by the present condition of our knowledge. This portion of the work would, however, have been rendered more valuable by an account of recent German investigations in this department of physiology, particularly those conducted under Voit's directions in the laboratory at Munich.

The catalogue of alimentary substances or articles of food is very complete and valuable, the description of the various sorts of alcoholic beverages deserving especial praise. Some remarks on the different methods of preserving food find their place appropriately in this connection.

The latter part of the work is devoted to dietetics, theoretical and practical, including remarks on the diet of infants, diet for training and therapeutical dietetics. The dietaries of the principal hospitals of Great Britain form a valuable addition to this portion of the volume.

H. P. B.

Physiology for Practical Use. Edited by JAMES HINTON. New York: D. Appleton & Co. 1874.

MR. LEWES's old title of the *Physiology of Common Life* would do for this book perhaps better than that which it bears. For practical precepts constitute but a small part of it, and even then reflect the present state of medical science more by appearing as simple, empirical rules than deductions from what must still be called the ever shifting theories of physiological

science. The chapter on the ear is perhaps the most perfect, being very straightforward, and full of detailed practical advice. It is, of course, by the editor, and we suppose we may also recognize his hand in the sermonizing passages which are frequent throughout the book. These will, no doubt, displease many readers. But they do not displease us, for they in no way resemble the official moralizing of the old-fashioned teleological expositor of Nature with his routine *fabula docet*, but are the utterances of a man of genius, whose religious imagination is simply not to be repressed, although he probably knows that he is expected rather not to use it here.

There is a good chapter on alcohol, and others on sleep and sleeplessness, taking cold, headache, gymnastics, &c. Much physiological information is given in simple language, and the book may, on the whole, be cordially commended to those readers whose minds are not strong enough for the more nutritious food that more systematic but not necessarily larger works will give them. The trouble with all ultra-simple popularizing books is that they give results only without their concrete experimental basis, so that the reader gets a most dreamlike and vague notion of the real *things* described as occurring. A much better, though larger and more thorough book, combining physiology, pathology and hygiene, and written popularly in the best sense, namely, very clearly, is Le Bon's "*Vie Humaine*," recently published in Paris.

In the chapter on ventilation, this plan is recommended as one of the best and simplest for ordinary rooms:—A piece of wood, three inches high and exactly as long as the breadth of the window, is to be prepared. Let the sash be now raised, the slip of wood placed on the sill, and the sash drawn closely upon it. If the slip has been well fitted, there will be no draft in consequence of this displacement of the sash at its lower part; but the top of the lower sash will overlap the bottom of the upper one, and between the two bars perpendicular currents of air, not felt as draught, will enter and leave the room.

A Conspectus of the Medical Sciences for the Use of Students. By HENRY HARTSHORNE, A.M., M.D. Second Edition. Philadelphia: Henry C. Lea. 1874.

THE object of this manual is to afford a convenient work of reference to students during the brief moments at their command while in attendance upon medical lectures. The work is planned to meet the wants of the old system of medical education, particularly in schools where the "quiz-class" system is largely in vogue. The value of such a book is largely due to the manner in which it keeps the various departments up to the standard of modern medicine. New editions should be frequent, and each time the revision should be carefully made. It is a favorable sign that it has been found necessary in a short space of time to issue a new and carefully revised edition. The illustrations are very numerous, and unusually clear, and each part seems to have received its due share of attention. We can conceive such a work to be useful, not only to many students, but to practitioners, as well; but we should hesitate to recommend it to beginners, and we should be sorry to have it take the place of any of the regular text-books in the libraries of those for whom it is suited. It reflects credit, however, upon the industry and energy of its able editor.

BOOKS AND PAMPHLETS RECEIVED.

Experimental Researches on the Physiological and Therapeutical Action of the Phosphate of Lime. By L. DUSART. Second Edition. Paris. (From E. Fougere & Co.)

Reminiscences. By David Parsons Holton, M.D. Pp. 29.

The Pathology of Inebriety. A Lecture before the Medical and Chirurgical Faculty of Maryland. By Joseph Parrish, M.D. Baltimore. 1874. Pp. 17.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 3, 1874.

AMONG the annual announcements distributed by medical schools at this time of the year, there are none which we have perused with more interest than that of the Medical Department of the University of Pennsylvania. It will be remembered by readers of the JOURNAL that the medical faculty of this institution had succeeded last year in raising nearly half a million of dollars for the purpose of building a hospital and medical school on the new grounds of the University. These buildings are now nearly completed, and before the opening of the winter term will be ready for use. A design of the buildings accompanies the announcement, and plans of the interior of the school are also given. The style of the buildings is highly ornamental, and the arrangements of the school contain many conveniences and advantages not usually thought necessary for what is generally the most forlorn of all buildings intended for purposes of instruction.

We cannot help feeling some regret that the new plan of one-story buildings has not been adopted in the construction of the hospital, as has been done in the case of the Presbyterian Hospital, an interesting account of which is given by our Philadelphia correspondent in the JOURNAL for August 27th ult.

We are glad to notice a step in the right direction in the plan of instruction, as indicated in a modest foot-note, which states that "students who have attended two full courses of lectures on anatomy, chemistry, materia medica, and the institutes of medicine, may be examined upon these subjects at the end of their second course." In their final examination for their degrees, the other required subjects are included. We shall hope, at some future day, to see this foot-note assume a more prominent place in the pages of the announcement, and the plan, therein made optional, to be included among the requirements for a degree. The faculty is to be congratulated on its enterprise, and having now shaken the dust of many old associations and old ideas from its professional garments, we trust it will not rest satisfied with half-way measures, but will before long fully inaugurate a more complete reform in its system of medical education.

The other medical school of Philadelphia, not to be left behindhand, is also energetically raising a sum of money, which, with State aid already promised, will enable the faculty to erect a new building, now sadly needed, and place it on a footing that will enable it to compare favorably with its rival.

THE National Sportsmen's Association, a notice of which may be found on another page, may well result in a real benefit. Sportsmen, as a body, have small influence, and do not commonly act with much union or much energy; but they here have a chance to call to their aid the class who make their living by hunting and fishing. This class, if all kinds of fishermen be included, is large, and has power. They supply the markets with great quantities of animal food, of which the chief constituents are ducks, grouse, quails, deer, salmon, trout, smelts, shad and the true sea fishes. With the exception of some species of those last named, all require protection, and such protection can only become effectual through a well ordered system of laws controlling the entire country.

The investigations of the Fishery Commissions of the several States and of the United States have proved that the interests of the fishermen, as well as those of the consumer, require certain protective laws; and every exertion should be made to impress this truth on the men who supply our markets. The men who *keep* the markets may easily be controlled by stringent regulations.

THE forty-second Annual Meeting of the British Medical Association was opened on Tuesday, August 11, at Norwich, the retiring President, Sir William Fergusson, in the chair. The President elect, Edward Copeman, M.D., delivered the annual address, after which Mr. Fowke, General Secretary, read his report, which shows the society not only to be relieved from the debt by which it had been embarrassed in former years, but also to have a sufficient sum of money to enable it to make grants for scientific investigations, which hitherto it had not been able to do. The number of members is still on the increase, while the names of the most distinguished members of the profession figure conspicuously either as officers or as participants in the literary work of the Association. The last number of the Association's *Journal* contains the various addresses, the standard of which appears to be nearly if not quite equal to that of last year. The prospects for a successful meeting next year are unusually good, the Association having accepted an invitation from members of the profession in Edinburgh to hold the next meeting in that city. Sir Robert Christison has been made President elect.

BELLEVUE HOSPITAL.—At a recent meeting of the Commissioners of Charities and Correction, the following resolutions were adopted:—

“*Resolved*, That the Medical Board of Bellevue Hospital shall, on the 1st of September be organized in the manner following, and thereafter the present Board, as at present constituted, shall cease to exist:—

“*First*: On the first of September the following named physicians and surgeons shall constitute the Medical Board of Bellevue Hospital: Dr. Aus-

tin Flint, Bellevue College; Dr. Alonzo Clark, Twenty-third Street College; Dr. Alfred L. Loomis, University College; Dr. Wm. B. Eager, no school; Dr. James R. Wood, Bellevue College; Dr. Henry B. Sands, University College (College of Physicians and Surgeons); Dr. Stephen Smith, New York University; Dr. Ernst Krackowizer, no school.

"*Second:* The members of the Medical Board will, as soon as may be after September, nominate to the Commissioners of Charities and Correction such physicians and surgeons as members of the Medical Board of Bellevue Hospital as will enable the Commissioners to appoint from the persons so nominated ten members in addition to those above named, so that the Medical Board shall consist of eighteen members.

"*Third:* When the Medical Board shall have been constituted of eighteen members, they shall be divided by the Commissioners into three classes. The term of the first class shall be for three years; of the second class, for five years; and of the third class, for seven years. The members of each class shall be eligible for reappointment, and all appointments to fill vacancies shall be for seven years.

"*Fourth:* When a vacancy shall occur in the Medical Board, it shall be the duty of the Board to give public notice through one or more of the medical journals published in the city of New York of such vacancy, and to invite the application of such members of the profession resident in New York as may desire to be candidates for appointment.

"*Fifth:* All applications for appointment shall be considered by the Medical Board, and the names of the candidates who, in the opinion of the Board, are highest in the order of merit for professional ability, attainment and personal character, shall be transmitted to the Commissioners, who will appoint one of the candidates named to the vacancy.

"*Sixth:* The Medical Board will assign the service to its several members, but such service shall be continuous throughout the year.

"*Seventh:* The rules and regulations of the Hospital not inconsistent with the foregoing will be continued in force.

"*Eighth:* That a pavilion hospital be immediately erected after January 1, 1875, on Blackwell's Island, for a Maternity Hospital, to be administered by a separate Medical Board, organized in a like manner to the Bellevue Medical Board."

On the 28th of July, the resolutions were adopted, with an amendment authorizing the eight members to nominate, by September next, a number of physicians and surgeons from whom the Commissioners are to choose eleven additional members of the Board, making nineteen members in all.

The clause relative to the Maternity Hospital was also adopted.—*New York Medical Record*.

KOSTER ON UNRECOGNIZED INSANITY.—Dr. Koster has for some time been engaged in describing a number of persons in whom the insanity was not recognized, albeit they were known to be lazy, incorrigible, always getting into trouble, &c. Some selections from Dr. Koster's "gallery" have already been given in the *London Medical Record*, and we now give the chief points of the summary that he makes (*Irrenfreund*, No. 12). Hereditary taint, although the history was very difficult to obtain in many instances, was nevertheless marked, amounting in round numbers to 60 per cent. The development of the malady is threefold. It comes on either gradually from early youth, as a constantly increasing manifestation of mental defects, such as roguery or vagabondism; or else appears at puberty, or perhaps later still in life, after some such cause as injury to the head, blighted affections, excesses, fevers, &c. The course of the insanity is either by a slow increase of the symptoms, or by excitement, fury and destructive tendency. Hallucinations of the higher senses are rare, and still more so are fixed delusions. In one girl and in three men, a state of dementia rapidly supervened, with motor paralysis; whilst in two there were optimistic feelings, and in the other two a state of melancholy. The form of the disease is not pure, but rather mixed. Based

on a state of melancholy or moroseness, there are frequently large and supercilious notions superadded. The melancholy takes an active form in the way of suspicion against the family surroundings and the world in general, disposition to show anger, and constant bemoanings and complaints. Sometimes the patients take to listless wandering about, at other times they fall rapidly into dementia. The individual symptoms vary according to the peculiar temperament of the person; some may be altogether absent, but there is in most, if not in all, instances an abnormal state of irritability, to which may be added lesions of common sensibility of the most various kinds, insane feelings amounting to fury of the highest degree. This irritability much resembles that seen amongst epileptics, who form the *enfants terribles* of asylums. It is especially among women that complaints are made, and then they assume the hysterical form, pointing especially to the præcordial region, the head, the uterus, or a general feeling of weight and pain in the limbs. At times, however, the men complain also, and one is inclined to attribute to them either simulation or exaggeration. Most of the persons of this class are inclined to intrigue, lie and quarrel, and to shirk work. This shirking of work shows itself in different ways. Some will occupy themselves for a time in a light occupation; others only under constant supervision and stimulation, and even then they adduce the most trifling excuses to be spared the labor; whilst many are absolutely incapable of work in any form. One very striking phenomenon is an irremediable chattering, a sort of brain-diarrhœa, and they may be listened to for hours at a time without any definite conception of what they are talking about. Others, on the contrary, refuse to answer the questions put to them, or will only converse with certain individuals. Absolute and concrete delusions are seldom met with, though there may be an exaggerated self-feeling, and they talk of being "occupied with their own affairs," without time to attend to the work placed before them. Periodical exacerbations are witnessed, chiefly shown in emotional excitement, and at times they amount to positive fury. It is now that attempts to escape oftenest occur, whereas, as a rule, in spite of their complaints and discomfort, they are well contented with the asylum. The bodily condition is mostly good, and many have an attractive appearance and intelligent expression. Notable bodily defects are wanting, though on close examination it is apparent that one may have a peculiar skull-formation, in another the face is non-symmetrical, and a third may show a decided scrofulous habit. Impulse to drink amongst the men, and sexual propensity in the women, have been said by some to be constantly met with, but this is not accordant with Dr. Koster's experience. An exact and scientific inquiry into the houses of ill-fame in large cities might discover that many of the denizens are persons of a low degree of intellectual power. It remains a fact that all these people have been hitherto wrongly estimated, and on the ground of public morality have been placed in inappropriate institutions; whence, on the supervention of an attack of melancholy or fury, they have been removed to an asylum as incurable or only capable, under constant supervision, of improvement. Good food, tepid baths, and injections of morphia, with rest in bed, are the principal therapeutic measures. We may recognize here a group of cases which, from their development, cause and symptoms, vagabond life, hereditary influence, irritability and perversity, with periodic exacerbations and remissions, may be classed as "deluded rogues and parasites of society."—*The London Medical Record*.

TREATMENT OF FRACTURE OF THE SKULL.—Dr. Corley, of the Jervis Street Hospital, Dublin, records a series of cases of fracture of the skull, and, in his final observations, enumerates the injuries of the cranial bones for the relief of which trephining has been practised, which are as follows:—

1. Simple Fissure. For this fracture, the operation should never be performed. True, that, accompanying the injury, there may be localized extravasation of blood; or, subsequently and consequent upon it, there may be

formation of matter, which may require the application of the trephine, but the operation then has no reference to the fracture.

2. Simple Comminuted Fracture. A fracture may be simple externally, but the inner table may be more extensively fractured, and fragments may wound the dura mater or brain. This condition cannot be guessed at until symptoms of intracranial mischief arise; for them, and not for the fracture, we may trephine.

3. Depressed Fracture. Dr. Corley does not make any distinction between simple depressed and compound fracture as to operative treatment. The latter is more liable to be followed by intracranial mischief. As long as no symptoms are present, or, if present, until we have tried all other means of removing them, we should not operate. If obliged to interfere, we do so with little hope, as the symptoms are most likely to own an origin other than the depressed bone.

4. Depressed Fracture, Comminuted, including that which is known as "punctured" fracture, such as may be produced by the stab of a pointed weapon, kick of a horse, or blow of a sharp stone. In many cases of this description, it may be necessary to operate at once, whether symptoms be present or not. If the surgeon has reason to believe that in a punctured fracture spiculae of bone are impinging on the surface of the brain and lacerating it, he is bound to interfere at once. The cause, nature and position of the injury, and the peculiarities of the symptoms, if any be present, will all be of value in assisting him to arrive at a correct determination. However, in this case, the only one in which interference should be sanctioned without symptoms, much must be left to the experience and judgment of the surgeon.—*Dublin Medical Journal, April, 1874; Practitioner.*

M. PASTEUR.—The French Government lately laid before the National Assembly a bill for granting to M. Pasteur, who retires from his professorship at the Sorbonne in consequence of failure of vision, a national recompense for his important and valuable contributions to science. It is proposed to grant him an annual pension of 12,000 *francs* (£489), being nearly the amount of his emoluments at the Sorbonne; the payments to commence as soon as the bill should be passed by the Assembly. After his death, his widow is to have annually one half of the above named sum. The Commission charged with the examination of the bill, in presenting their report on it, recommended the Assembly to approve it on the following grounds:—

"In voting the pension, you will accomplish an useful work—an useful work, because the *éclat* of the recompense granted will arouse the attention of the most careless, and will contribute to the triumph of scientific method over obstinate routine; an useful work, for the learned, recognizing the anxiety of the representatives of the nation and assured for the future, will pursue their labors with an ardor untrammelled by painful cares; a work of special utility, at a moment when international communication and multiplied commerce, bringing good and evil alike, threaten to strike our agriculture with scourges against which science alone can defend it; an useful work, finally and above all, because it will be an act of justice."

When the bill came on for consideration in its turn among the orders of the day, the Assembly at once voted urgency, and passed it during the same sitting. Twenty-four members only voted against it.—*British Medical Journal.*

THE PECULIAR PEOPLE AGAIN.—Thomas Hinds, a member of this sect, was lately charged at the Woolwich Police Court with the manslaughter of his child, Joseph Hinds, aged two years, through neglecting to provide it with proper remedies and attendance during its illness. The coroner's jury had returned a verdict of manslaughter against him. The child was ill for three weeks, and frequently in convulsions; but the parents, following the

practice of the Peculiar People, sent for one of the elders, named Hurry, who anointed it with oil and prayed over it. A *post-mortem* examination showed that death resulted from pleurisy and pericarditis. The prisoner, who said that all he had done was for the glory of God, was committed for trial.—*Dublin Medical Press and Circular*.

Correspondence.

LETTER FROM PARIS.

PARIS, Aug. 8, 1874.

THE Musée Orfila, always interesting, is doubly so as seen in comparison with the English collections. I do not mean, as yet, to say it is better, but that it is different. Nationality crops out as much in the dissection of a leg as in the cut of a coat. The Museum is too well known to justify a general description, so I will confine myself to certain parts. One striking feature is the number of preparations of the fasciæ, for the study of which the French school is preëminent. Even the Germans, who are probably the most thorough anatomists, treat this branch rather superficially. The preparations of the fasciæ of the abdomen, thigh and perineum make clear, at once, many points which diagrams and pictures leave unexplained. The corrosion preparations are of various merit, the best surpassing any I saw in England. I looked forward, however, with the greatest interest to the muscular preparations, anxious to learn if Brissaud and Lascowski's flexible ones were as fine as when they filled me with wonder five years ago. They are still there, and newer ones with them, but, alas, their glory is departed. None were red, and all looked shrunken and hardened. They were not spoiled, but greatly deteriorated. There is no doubt that such preparations are of value; it is well to have them on hand, but it is, I fear, very doubtful if they can be made to withstand indefinitely the action of time, and it is certain that they cannot do so if they are used. Near these were several others, and, I think, older muscular preparations, by Suquet. His method may be found in his work on "Embaument," and consists in injecting the part to its greatest capacity with a solution of gelatine, which, by hardening inside the capillaries, makes the muscles larger and firmer than is normal. The part is then dissected, painted with appropriate (?) colors and varnished. These preparations appear to keep quite unchanged, but, with a few exceptions, they are horribly ugly and unnatural. Many, before now, have labored to make good imitations of the human body, but it has been reserved for Suquet to make the human body look like a bad imitation.

As a whole, the Museum is very fine, and, though in many parts open to the criticism of owing too much to artificial embellishment, it probably surpasses any in London, with the exception of that of the Royal College of Surgeons, with which it cannot properly be compared.

T. D., JR.

LETTER FROM VIENNA.

[From our Regular Correspondent.]

VIENNA, AUSTRIA, July 22, 1874.

MESSRS. EDITORS.—The International Sanitary Congress, now in session in this city, has been laboring for several weeks past, its especial object being the regulation of quarantine in case of Asiatic cholera. The questions thus far discussed were the following, viz.:—1st. If cholera made its appearance in a certain locality, whether intercourse should be allowed with non-infected localities by communication on land, on the rivers and on the high sea? 2d. The best measures which should be adopted to prevent the extension of cholera and the value of disinfectants to destroy cholera poison. The Congress, composed of the most eminent sanitarians of the day, is divided into two

camps, one party insisting that the strictest rules should be adopted to prevent persons from infected places to hold intercourse with persons from non-infected places; the other party—who carried their point by a considerable majority—claiming that it is impossible to interrupt railroad and steamboat travelling by law; that, even in time of war, blockade runners take the risk of being captured and perhaps of being shot as spies, and still no law can prevent them from having intercourse with both of the belligerents. It would, therefore, be useless to pass any law for the purpose mentioned. The Congress came to the conclusion that land and river quarantine would be useless. As regards communication by sea, the Congress deprecates the detention of ships coming from infected ports, but they recommend the establishment of hospitals at all seaports for the immediate reception of patients who are suffering from cholera upon their arrival at a station. All persons on board such an infected vessel to take baths before going on shore, and to change their wearing apparel. As to the third question, it was answered in the negative, that, up to the present moment, there were no disinfectants known that would destroy the cholera poison; still it was advisable to use them, as they might be beneficial. The first Secretary of the American Legation here, Mr. Delaplaine, through whom I applied for a ticket of admission, has received the assurance from the President of the Cholera Congress, Herr von Gager, that the minutes of the proceedings will be placed at my disposal, and the question being of such vital importance to the United States—who, I regret to say, are not represented in the Congress—I will send you the most interesting portions of the same. Through the courtesy of one of the members of the Congress, I am enabled to send you the names and titles of the members.

Germany is represented by Prof. Pettenkofer and Prof. Hirsch.

Austria and Hungary.—Baron Gager, President of the Congress; Albert Glandstatten, President Austrian Marine; Francis Ulrich, Cabinet Councillor in the Department of the Interior; Chs. Haardt de Hartenthuren, Councillor Interior Department; Dr. Drasche, Head Physician, Rudolf's Hospital; Prof. Chs. Sigmund, Chevalier de Honor; Dr. Leopold Grosz, Councillor Hungarian Marine Service; Dr. Josef Schlosser, Royal Physician, Hungary; Dr. Hector Catinelli, Councillor Marine Service.

Belgium.—Dr. Henrard, Inspector Sanitary Service, Department of the Interior; Dr. Letebvre, Prof. of Pathology, University of Louvain. Dr. P. A. Schleiner, Chief Physician, Copenhagen.

Egypt.—S. E. Colucci, President Sanitary Service; M. De Régné Bey, Secretary Sanitary Service.

France.—Baron Maximilien de Ling, First Secretary of French Legation, Vienna; Dr. A. Fauvel, Inspector General, Sanitary Service; Dr. A. Proust, Professor in Paris.

England.—Dr. Dickson, Physician of the English Embassy at Constantinople; Dr. Ed. C. Seaton, First Officer Assistant of the Sanitary Council in London.

Greece.—Dr. Orphanides, Professor at Athens.

Italy.—Mariano Semenola, Professor of Materia Medica, Naples.

Luxemburg.—Dr. Schmidt, President of the Society of Natural History.

Norway.—Le Dr. T. Kierulf, Chief Physician, Interior Department. Dr. Klaus Larsen, Sanitary Officer of the Norwegian Army.

Netherlands.—H. L. Reeder, Marine Surgeon, 1st Class; Dr. H. Van Kappelle, Chief of Division, Department of the Interior.

Persia.—Dr. J. E. Pollak, Hekim Paschi, Body Physician to the Schach of Persia, Interpreter of the International Sanitary Congress.

Portugal.—Dr. José Thomas de Souza Martins, Professor of Medicine at Liede.

Roumania.—Dr. Marcovitz, Professor at Bukarest.

Serbia.—Dr. Etienne Miloshavlevitch, Chief Sanitary Officer, Interior Department.

Sweden.—Dr. N. J. Berlin, Director General and President of the Medical College.

Switzerland.—Dr. Chs. Zehender, District Physician, Zurich; Dr. Adolf Ziegler, Secretary Medical College at Berne.

Turkey.—Dr. Bartotelli, Inspector General, Sanitary Service; Ali Bey, Member of the Sanitary Council at Constantinople.

As mentioned above, the Austrian Government, through her ambassador at Washington, has invited our Government to send a representative to the Congress, but up to this day no one has appeared in that capacity.

The meetings are held in the building of the Interior Department, with closed doors, and no one is admitted except the regularly accredited members representing the countries mentioned. The proceedings, however, are published daily in the papers of this city. The language used is the French, only the German delegates, Pettenkofer and Hirsch, speaking German, which is translated into French by Dr. Pollak. The members have been received with the greatest cordiality by the Emperor of Austria, who entertained them at Schönbrunn, near Vienna, at his summer residence, where they dined and wine to their hearts' content. After the final adjournment of the Congress, I will be able to give you a full and detailed account of their deliberations, and I give you these meagre data only in anticipation of the results attained at the end of the session.

Very respectfully yours,

RUDOLF TAUSZKY.

TRANSFUSION.

MESSRS. EDITORS,—In the recent periodical medical literature on Transfusion, the experiments of Hasse, with direct transfusion of lamb's blood, occupy prominent and very favorable mention. Hasse's published cases followed those of Gesellius by about a year, and seemed to set the success of the method beyond doubt.

In the last number of the *Archiv für Klinische Medizin* is a paper on the same subject, known, no doubt, to many of your readers, but the results in this series of trials are so opposed to that obtained by the above-mentioned experimenters that they deserve wider circulation.

The article is by Drs. Fiedler and Birch-Hirschfeld, of Dresden. Their own trials cover six cases of tuberculosis—four in the earlier, and two in the later stages.

The amount of blood injected varied between 50 and 150 grammes. During the transfusion, there was noticed redness of face, neck and body, increasing to cyanosis, great distress, dyspnoea, excessive pain in sacral region, so that in each case the operation was broken off by the urgency of the symptoms. The phenomena immediately following were long-continued chills, followed by a rise in the temperature from 1° to 4° C. Urticaria, ecchymoses and hæmaturia were observed in some of the cases.

The final result gave in no case any improvement in the thoracic symptoms, and only one seemed to derive any benefit whatever.

Eight other cases, outside the hospital, are adduced, and the statement is made "that the physicians who operated are not able to prove, in a single case, a beneficial result following the transfusion of lamb's blood in tuberculosis."

Sander's seven cases (*Berliner Klinische Wochenschrift*, 3d April, 1874) are said to have resulted in a "temporary improvement in appetite and nutrition" set off by the threatening symptoms occurring at the time of operation. Winckel's one case of pyæmia ends fatally, and the *post mortem* reveals coagula in the pleural cavity, the result of the transfusion.

In their criticism of these cases, the authors sum up the results of this method of treatment in tuberculosis as follows: "We consider it unjustifiable to employ further with the unfortunate victims of consumption a procedure which must be considered by no means free from danger, and to which, from our observations, we cannot attribute the slightest therapeutical value."

W. W. LOVEJOY.

RADICAL TREATMENT OF HEMORRHOIDS.

MESSRS. EDITORS,—July 9th, A. B., a young gentleman residing in this city, called upon me for treatment, having several very painful external hæmorrhoidal tumors. Being unwilling to have either ligatures or excision resorted to in the treatment of his case, I made applications of solid nitrate of silver to each tumor, using charpie saturated with Monsel's styptic as a dressing. Each dressing was held in place as long as possible by strips of adhesive plaster. These applications and dressings were continued at intervals, every other day at first—later, every three days—until nine applications had been made. On July 25th, the tumors were obliterated, each having sloughed off.

During the treatment, I prescribed pulvis sennæ compositus (which kept the bowels in the required fluid condition), ordering the patient to abstain from all stimulating food. After the second application, the patient was able to attend to his business as usual, the pain having entirely subsided.

Respectfully yours, J. H. JOHNSON.

Providence, R. I., July 28, 1874.

SIMPLE METHOD OF REPAIRING REGISTERING THERMOMETERS.

MESSRS. EDITORS,—My registering thermometer, after being used two or three times, becomes worthless, as I was informed by one of our instrument makers, in consequence of the needle being shaken down and uniting with the mercury at the bottom of the glass. He said he had a number of his own spoiled in this way by gentlemen examining them in his store, and that he could not repair them. He "would sell me another," and gave the valuable advice to "be more careful with it."

I declined to invest again in an article so easily made worthless, and set about repairing the old one, and succeeded after a number of experiments. Applying gentle heat to the bottom, the mercury quickly rises to an expansion at the top of the glass. Permitting a very little to enter this expansion, a sharp, quick blow on the top breaks the column in a number of places. Shaking all down into the lower bulb, a little remains at the top to form the needle. This is forced out by considerable heat; then partially shake down, and the instrument is again serviceable. If too much mercury rises into the upper expansion, the needle is made too long, or perhaps the top of the glass is broken off.

H. J. BARNES, M.D.

Boston, July, 14, 1874.

CALIFORNIA AND PHTHISIS.

BOSTON, July 15, 1874.

MESSRS. EDITORS,—The following extracts from the letter of a patient, who went to Santa Barbara, California, may be of interest to some of our profession, who have heard that all patients who go there with consumption get well.

C. E. B.

"The wind is blowing, and walking is consequently unpleasant, on account of the dust. There is much sickness in town at present. Some ascribe it to the bad water the town is supplied with. In my immediate circle of friends, every one seems to be sick. Mrs. — says her husband is losing flesh rapidly, although, to me, he is looking well. Mr. * is going home next Sunday. He looks like a walking skeleton. Mr. ** would go home, but he has no home to go to. Mr. A. B. is miserable, and wants to leave Santa Barbara and go across the mountains. Miss C. D. is sick, lungs affected, and her father a doctor, who says he must move to a healthier locality. I think Santa Barbara rather a failure, as regards her wonderful curative powers. I suppose there are some, but I do not know one who has received lasting benefit from the climate. . . . I feel about the same as usual, but see no difference in my cough."

Medical Miscellany.

G. P. PUTNAM'S Sons, Publishers, have issued a circular, calling attention to a new quarterly journal of skin and venereal disease, entitled the *Archives of Dermatology*, which is to be edited by Dr. L. Duncan Bulkley. Each issue will consist of 96 octavo pages with suitable illustrations, special attention being given to photographic work and microscopy. The transactions of the New York Dermatological Society will appear in that journal. The first number will appear in October.

CLAIMS for priority in the application of extension to flaps in cases after amputation, have recently appeared in the *Lancet*, and have brought out a letter from "Edward Warren Bey, Chief Surgeon, Staff Egyptian Army," formerly Dr. Edward Warren, of Baltimore, in which he claims this invention, first employed by him in August, 1861. This method has been long in use in this city, and is familiar to all who have visited our hospitals for twenty years past.

THE contest for the chair of physiology in the University of Edinburgh has given rise to a good deal of sharp correspondence in the English journals. Dr. Pettigrew has felt obliged to reply to some of the comments which have been aimed at his method of canvassing for the position. Dr. Pettigrew replies, very justly, that this system has been authorized by custom. The glaring absurdities of a system which compels every candidate to resort to means which most modest men would strenuously avoid, have been made prominent on this occasion, and will, we hope, exert some influence in breaking up a practice which must have the effect of lowering the estimation in which the most active and prominent men are held by the mass of the profession.

BRUNTON ON THE TREATMENT OF HEADACHE.—Dr. L. Brunton, in a paper "On the Action of Purgative Medicines," recently published in the *Practitioner*, writes:—"The administration of a brisk purgative, or a small dose of Epsom salts, thrice a day, is a most effectual remedy for frontal headache when combined with constipation; but if the bowels be regular, the morbid processes on which it depends seems to be checked, and the headache removed even more effectually by nitro-hydrochloric acid or by alkalies, given before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the alkalies appear to me to be more effectual. At the same time that the headache is removed, the feeling of sleepiness and weariness, which frequently leads the patients to complain that they rise up more tired than they lay down, generally disappears."—*The London Medical Record*.

THE following ancient and wholesome oath was taken by young physicians at Montpellier. It was at Montpellier that Rabelais was professor; as also Rondelet, the father of modern zoölogy:—

"I, Isidore, &c. &c., before the statue of Hippocrates, and in presence of the Professors of this School, and of my dear fellow students, do, in the name of the Most High, swear to be faithful to the laws of honor and probity in the practice of medicine.

"I will attend the poor gratuitously, and never will I exact more pay than my work is worth. When called to visit families, my eyes shall not see what there takes place; my tongue shall keep silent on the secrets confided to me, and my profession shall never serve for the corruption of society, or in the furthering of crime.

"Respectful and grateful towards my masters, I will hand down to their children the lessons I have received from the fathers.

"If I am faithful to my oath, may men honor me; may I be covered with disgrace and scorn by my associates, if I fail."—*L'Hermite en Province*, p. 343, vol. ii.

A CALL FOR A NATIONAL SPORTSMEN'S ASSOCIATION.—The "New York State Association for the Protection of Fish and Game," believing that the time had arrived when public sentiment was in favor of forming a grand national organization for the protection of fish and game, did, in Convention assembled at Oswego, N. Y., on June 23, 1874, adopt the following:—

"Resolved, That this Association, in Convention assembled, do indorse the call for a National Association, issued in *The American Sportsman* of Feb. 21, 1874," having for its object the procurement of "intelligent and efficient legislation for the protection of game birds and fish," and did name the 9th day of September, 1874, and Niagara Falls, N. Y., as the proper time and place for holding such Convention, and did appoint us as delegates to said Convention; now,

Therefore, We do issue this call to all State Sportsmen's Associations and Local Organizations where no State Associations exist, and gentlemen-sportsmen where no local clubs exist, to take the matter in hand and send Delegations to said Convention, and make the meeting one worthy of American gentlemen-sportsmen.

A. C. MATTOON, Oswego, N. Y.

S. T. MURRAY, Niagara Falls, N. Y.

N. ROWE, West Troy, N. Y.

GEORGE W. FLOWER, Watertown, N. Y.

W. J. BABCOCK, Rochester, N. Y.

NOTES AND QUERIES.

TYNGSBORO, August 17, 1874.

MESSRS. EDITORS,—Will you please inform your readers if all persons admitted to the Massachusetts Charitable Eye and Ear Infirmary *must* be admitted as *charity* patients. Is the institution for the poor only?

Complaint has been made because persons *able and willing* to pay all reasonable charges for board and treatment have applied for admission. Yours, &c., ***

QUERY ABOUT THE MANAGEMENT OF THE EARS.

MESSRS. EDITORS,—I see much in your JOURNAL about the diseases, treatment and management of the eye. Is the ear an organ too insufficient to be noticed? I want to know if, in the natural loss of hearing by age, there is any treatment to ward off the too rapid approach of decay, or help for old ears suffering thus? Or is there any hygienic treatment necessary to prolong this sense or prevent its too rapid decay? Or is a rigid "let alone" the best course in these matters? SENEX.

Peterboro', N. H., August 22, 1874.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities for the week ending August 22, 1874.

Boston, 193; Worcester, 22; Lowell, 27; Chelsea, 6; Cambridge, 25; Salem, 11; Lawrence, 13; Springfield, 12; Lynn, 16; Fitchburg, 9; Newburyport, 7; Somerville, 14; Fall River, 41; Haverhill, 6; Holyoke, 11. Total, 425.

Prevalent Diseases.—Cholera infantum, 124; consumption, 40; typhoid fever, 19.

The mortality from cholera infantum shows a marked diminution as compared with last week. The deaths from typhoid fever are steadily increasing in number.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 29, 1874. Males, 86; females, 81. Accident, 3; asthma, 2; aneurism, 1; inflammation of the bowels, 1; bronchitis, 4; congestion of the brain, 1; disease of the brain, 5; cyanosis, 1; cholera morbus, 1; cancer, 2; cholera infantum, 47; consumption, 27; convulsions, 3; croup, 1; cystitis, 2; debility, 4; diarrhoea, 5; dropsy, 1; dropsy of the brain, 3; dysentery, 3; epilepsy, 1; scarlet fever, 2; typhoid fever, 5; gastritis, 1; disease of the heart, 3; insanity, 1; intemperance, 1; inflammation of the lungs, 4; marasmus, 12; measles, 1; old age, 4; paralysis, 3; pleurisy, 1; premature birth, 1; peritonitis, 1; puerperal disease, 1; scrofula, 1; syphilis, 1; tumor, 1; whooping cough, 4.

Under 5 years of age, 93; between 5 and 20 years, 6; between 20 and 40 years, 30; between 40 and 60 years, 16; over 60 years, 22. Born in the United States, 134; Ireland, 21; other places, 9.

Original Communications.

NOTES OF CASES OF PLEURISY AND PARACENTESIS THORACIS.

By HALL CURTIS, M.D.

Visiting Physician at the Boston City Hospital.

VI.—J. R., aged 29, farmer, entered the hospital Nov. 7, 1873. He had variolalast winter, and has not felt so strong since; twelve days ago he had chills and the following day dyspnoea; ten days ago he had to leave off work and began to cough, the expectoration being slight, white and frothy. After the cough began, he had pain in side; the dyspnoea now became very great, and he was most comfortable in a sitting posture. When lying down, can rest best on right side. Temperature 102.1°. Pulse 114. Respiration 36.

Right chest flat throughout front and back; bronchial respiration and bronchophony over whole of right chest; no râles; intercostal spaces somewhat bulging; apex beat of heart in line with left nipple. Diuretics and tincture of iodine to the chest.

Nov. 10th and 11th.—Resonance and vesicular respiration at right apex, front and back. Subcrepitant râles occasionally heard over right front and upper part of back.

Nov. 15th.—Dulness diminishes daily.

Dec. 13th.—Right front dull below lower border of third rib; no change in lying down; right back dull nearly as high as spine of scapula; respiration feeble all over right back and almost imperceptible at base.

Jan. 9th.—Murmur at apex of heart following first sound; abdomen is distended and area of splenic dulness increased.

Jan. 15th.—Paracentesis performed, but owing to imperfection in aspirator only one ounce of very slightly bloody serum was withdrawn.

Jan. 30th.—Right chest hyper-resonant, with loss of tone commencing one inch above nipple; amphoric respiration upper two-thirds, with mucous râles at lower third most marked on inspiration; respiration exaggerated over left front, with mucous râles at lower half of chest; want of tone over lower half of both backs and absence of respiration in lower third of each back.

Feb. 8th.—On full inspiration sibilant and sonorous râles with distant pleuritic rubbing were heard over lower half of left front. Mucous râles were heard in lower part of front of right lung.

Feb. 12th.—Thoracentesis again performed; 5½ ounces of serum tinged with blood were withdrawn.

Feb. 14th.—At his request he was discharged, relieved.

VII.—J. K., aged 18, laborer. Entered hospital Dec. 26, 1873.

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Patient was never sick before. Three weeks ago had a chill, followed by cough and stitch in lower part of right chest. No expectoration till two days before entrance; sputum whitish and frothy; has considerable dyspnoea since cough began; has worked till six days ago, but has wasted rapidly. Temperature 101.4°. Pulse 104. Respiration 36.

Right chest does not expand on inspiration; intercostal spaces obliterated, and this side measures one inch more than the left; left apex dull; expiration prolonged at both apices with harsh inspiration. Right back dull above spine of scapula, and flat below; respiration bronchial and very feeble below spine of scapula. Right front dull to level of nipple when sitting; line of dullness changes on lying down. Diuretics and tincture of iodine to chest.

Jan. 11th.—Respiration heard to within an inch of right mamma; dulness back and front as before. Bronchial breathing heard through right back, more marked in lower half than before.

Jan. 16th.—Thoracentesis performed and 24 ounces of pus withdrawn.

Jan. 20th.—Much cough and sweating since operation; examination of right lung posteriorly same as on Jan. 11th.

Jan. 22d.—Discharged at own request, relieved.

VIII.—P. K., aged 42, baker. Entered hospital February 5, 1874. Family history good. General health good. Had epithelial disease of lower lip removed last July. Is addicted to drink. Eleven weeks ago was seized with a severe chill, which was followed by fever, pains in epigastrium and night sweats; some dyspnoea and palpitation on slight exertion; cough slight; was confined to bed for a day or two; laid on right side, and lost flesh and strength. Nine weeks ago noticed swelling of abdomen; four weeks ago œdema of feet appeared; has been troubled with hæmorrhoids for ten weeks past; has not had nausea, vomiting, indigestion, lumbar pain, headache or increased urination. Dyspnoea has increased the past month.

Is now much emaciated; countenance sallow and anæmic; slight cough; abdomen somewhat distended, but no fluid appreciable; slight œdema of feet.

Feb. 6th.—Some fulness and immobility of left back and slight œdema of integument. Dulness over left back from lower third of scapula, on right side from angle of scapula. Entire absence of respiration at each base; rubbing heard at posterior border of left scapula; dulness under left clavicle, and at lower part of each chest; friction heard above right nipple and mucous râles; rubbing sound also heard over middle of left front; liver dulness five inches in mammary line, five and one-half in axillary; nothing felt on deep palpation.

Feb. 13th.—(Edema much less; right back has cleared up entirely; dulness and distant respiration over lower portion of left.

March 7th.—For some nights has been unable to sleep except on right side; no œdema of legs. Hepatic dulness extends one inch below the border of ribs; left chest prominent, intercostal spaces nearly obliterated; has expansion of chest; complete dulness over whole of front; apex beat of heart felt to right of sternum; complete dulness over left back and tubular breathing along posterior border of scapula; paracentesis performed, puncture being made two inches below angle of scapula; nearly seven pints of serum were withdrawn.

March 8th.—Complete dulness below lower third of scapula; subcrepitant râles along upper half of posterior border of scapula; distant respiration to angle, and absence below. Heart sounds more to the left; some pitting over sternum.

March 20th.—In front, resonance to half an inch above left nipple; behind, to one and one-half inches below spine of scapula. Respiration heard to one inch above angle of scapula and absent below. Respiration in front same as at last record.

Paracentesis again done; four pints of serum withdrawn; the back immediately became resonant to angle of scapula, and respiration is plainly heard to this point.

March 28th.—Back still flat over lower portion, with some want of tone above. Respiration heard throughout left back, with subcrepitant râles at base.

Discharged, relieved.

IX.—W. F., 20 years of age, waiter. Entered hospital Feb. 25th, 1874. Family history good. Constitution and general health good. Was well up to a month ago. About that time he commenced to cough a little in the morning; this continued, but his appetite and strength remained good; four nights before entrance the cough grew worse, and pain came on in left side of chest. Next day felt very sick, feverish, without chill; has never had hæmoptysis.

Present condition, in bed, feeling very weak. Body well nourished; nails slightly clubbed; red line along gums; skin hot and dry; tongue thickly coated; thirst; coughs a good deal; says sputa are thick and yellow. Temperature 103.5°. Pulse 108. Respiration 18.

Feb. 26th.—Want of tone over left front. Respiration distant; on full inspiration, mucous râles are heard through left front, most marked below second rib, and occasional sibilant râles; right front respiration exaggerated; want of tone in left back, dull at base; distant crepitant râles at middle of back, with absence of respiration at base; cardiac sounds normal.

March 1st.—Examination of chest as before; except respiration through back, is more bronchial.

March 6th.—Left back dull and flat over lower half; entire absence of respiration below upper third of scapula; bronchial breathing at junction of upper and middle thirds of scapula; less expansion of this side; sounds of heart heard most perceptibly at right of sternum; left chest dull except at apex.

March 10th.—Paracentesis thoracis; four pints of serum withdrawn.

March 11th.—Dulness much diminished over left back; still perceptible over lower quarter. Respiration heard down to an inch above angle of scapula, with occasional subcrepitant râles.

March 25th.—Still want of tone over left back and flatness at base. Respiration heard to angle of scapula; absent below. Paracentesis, and one pint of serum withdrawn. Back become much more resonant and respiration was heard throughout.

March 30th.—Discharged, well.

X.—J. C., aged 26, laborer. Entered hospital March 10th. Family history obscure. Constitution and general health good. Three weeks ago was taken with pain in left side, which was increased by full inspiration, and accompanied by a dry cough and chilly sensations. Pain and cough have continued, although the pain has been less severe

and more of a dull character. For past two weeks has had dyspnœa; has lost flesh and strength; now sitting up; cough frequent; complains of pain in chest and weakness; tongue natural; appetite fair. Temperature 100°. Respiration 20. Pulse 92.

March 11th.—Left chest rounder; intercostal spaces full; very little expansion; apex beat of heart just to right of median line; dullness over upper fourth; flatness over rest of left back. Distant respiration heard above spine of scapula; none below. No respiration was heard below third rib in front. Paracentesis performed and five pints of serum withdrawn.

March 12th.—Dulness commences one inch above spine of scapula, passes downwards and becomes flat at base; still want of tone through left front, becoming flat on line with nipple. Respiration heard through left front to line of nipple, slightly tubular in character; apex of heart now beating one and a quarter inches to left of sternum. Tincture of iodine to chest. Quinîæ sulph. gr. ii. three times a day.

March 18th. Upper half of left back of almost normal resonance. Front of chest quite resonant. Respiration heard plainly to angle of scapula, and on full inspiration two inches below.

March 30th.—Still slight want of tone lower half left back, but respiration is heard throughout.

April 3d.—Discharged, well.

XI.—B. McD., 25 years old, laborer. Entered hospital Dec. 27, 1873. Family history good. Was in the hospital last August for pneumonia; slight cough continued after leaving hospital, accompanied with chest pain and some expectoration. Last October, after exposure, cough became worse, with pain in chest, increased expectoration and dyspnœa, followed by loss of flesh and strength. During the fall had been intemperate; right chest dull throughout, slightly bronchial respiration, and a few moist râles at right apex. Bronchial breathing and bronchophony over upper half right back, with moist râles throughout right back. At a limited spot near inner end of spine of scapula, amphoric respiration; also well marked bronchophony, with coarse mucous râles.

During January he gained strength, with but little change in physical signs.

Feb. 2d.—Dulness was found over lower third of right back, with distant respiration over upper two thirds, and absence of respiration in lower third; considerable dyspnœa.

Feb. 6th.—Dyspnœa has greatly increased. Dulness over middle of right back, becoming tympanitic towards base; some want of tone upper fourth left back. Respiration left back puerile, with mucous râles at base. Lower half right back amphoric respiration; mucous râles middle third.

Feb. 14th.—Respiration exaggerated through left front, with mucous râles over lower two thirds; want of tone through right front, with absence of respiration below second rib; want of tone through right back; respiration distant, on forced inspiration heard to one inch below scapula, with occasional dry and mucous râles; amphoric cough over lower fourth. Right chest very prominent. Succussion sound very marked.

Feb. 22d.—His general condition seems improved, though the liver is displaced downwards, and a murmur with first sound of heart is heard one inch to the left of sternum.

March 19th.—Right chest rounder; intercostal spaces obliterated; very slight expansion; dulness over front becoming flat at base. Entire absence of respiration except very distant at apex. Left front, tubular breathing with subcrepitant râles over lower two thirds; apex beat of heart at left nipple; right back, distant respiration above spine of scapula; subcrepitant râles to the middle; distant respiration, tubular in character and probably transmitted over rest; left back, respiration tubular, with subcrepitant râles lower third.

March 21st.—Exploring trocar introduced; one ounce of sero-purulent fluid withdrawn.

March 28th.—Paracentesis again performed; no fluid followed. Air to a considerable amount was withdrawn, with relief to patient.

June 1st.—Still in hospital. Slowly losing ground from progressive phthisis.

XII.—M. McN., 24 years old, domestic. Married. Entered March 21. Family history obscure. Says she was always well till a year ago, when she became troubled with rheumatism and swelling of leg.

About a month ago, after exposure to wet and cold, had a severe chill followed by pain in chest, becoming fixed in left side, and greatly exaggerated by full inspiration. Cough came on, with scanty expectoration. These symptoms have continued, the dyspnoea gradually increasing. Has lost much flesh and strength.

Now in bed; much emaciation; lies most comfortably on left side; breathing labored; constant pain and tenderness just below left nipple, where there is slight emphysema and discoloration; cough troublesome; profuse muco-purulent expectoration. Temperature 100.2°. Respiration 28. Pulse 100.

March 23d.—Want of tone through left front, with complete absence of respiration; amphoric cough under left clavicle; right front, respiration puerile. The cardiac sounds are distant; apex beat most distinct one inch to left of epigastrium. Left back completely dull, becoming flat over lower fourth. Above spine of scapula, respiration is distant and bronchial; absent below; right back, respiration exaggerated.

March 25th.—Mucous râles upper fourth left front on inspiration. Bronchial breathing with dry and moist râles through rest of left front. Patient apparently sinking. Paracentesis performed two inches below angle of scapula; no fluid followed, except a slight oozing of blood; the lung (?) was felt against end of trocar. The operation seemed, however, to relieve the depression of patient, as on the following day her general condition was much improved. Dr. Bowditch mentions noticing the same effect in some of his cases.

April 7th.—Dr. Edes inserted slowly a fine exploring trocar two inches to the left of my puncture, and withdrew 20 ounces of pus.

April 8th.—Resonance extends two fingers' breadth below spine of scapula, and respiration is stronger over this space than yesterday.

April 11th.—At point of emphysema already mentioned, there is a bulging when she coughs, which immediately subsides, accompanied by coarse crepitation.

April 20th.—Aspiratory needle introduced by Dr. Edes at the red-den spot in front, drawing off only half an ounce of pus. An opening was then made in the same place with a bistoury, a pint of pus was evacuated, and a drainage tube was introduced.

May 4th.—The opening still drains a few drops of watery serum.

May 15th.—Percussion resonant over left chest. Respiration almost entirely absent over left side, except at extreme lower part.

CONCERNING THE CAUSE OF GANGRENE FOLLOWING THE LIGATURE OF LARGE ARTERIES OF THE LOWER EXTREMITY.

By E. WARREN SAWYER, M.D. (Harv.), of Denver, Colorado.

Read before the Territorial Medical Society of Colorado, June 25, 1874.

WRITERS of surgery give proper prominence to the danger of gangrene attending the cutting off of the arterial supply of an extremity, but as far as my researches have extended, no one has attempted an explanation of the *primary* cause of gangrene, or, rather, no one has drawn attention to the complication or condition upon which gangrene depends under these circumstances.

I was led to this inquiry, while house surgeon at the Boston City Hospital, by two nearly simultaneous cases of ligature of the external iliac artery.

The first, in the service of Dr. Cheever, was that of a healthy boy, of 15 years, who had been stabbed in the left groin, while in a quarrel with a companion. He had bled to a state of unconsciousness when assistance reached him. Hæmorrhage was arrested by a compress and spica bandage. He revived under stimulants and was brought to the hospital. The external iliac artery was afterwards tied, just above Poupart's ligament. Extensive death of the limb followed, which necessitated, finally, the amputation of the thigh, in its lower third.

The second case, in the service of Dr. Thorndike, was that of an old man, a syphilitic, in every respect a more unfavorable subject for operation than the first, who presented himself with an aneurism of the right external iliac artery. This artery was tied near its origin, but there was no death of the limb following.

In the Boston Medical and Surgical Journal of March 19, 1874, Dr. Pinco, of Hyannis, Mass., reports a case of wound of the femoral artery, from which the patient "lost, in a short time, a large quantity of blood, producing partial syncope." The artery was tied at the point of injury. Two weeks afterward, the thigh was amputated, "at the lower part of the middle third," for gangrene of the limb.

Within a year, two cases have occurred in my practice, in which I tied the large artery of the lower extremity.

The first was that of a strong young man, who had been shot in the groin, wounding the artery. He had bled profusely, and was collapsed when I saw him. After stimulants had been used, under ether, I tied his external iliac artery. Twelve days afterward, I amputated his thigh in its lower third for death of the limb.

In the second instance, the subject was also a young man, who had received a pistol ball in the upper third of the thigh, on its anterior aspect. There was no hæmorrhage, and the man alighted from his carriage and walked up stairs to his room without assistance. Twelve hours afterward, I was called to him. On enlarging the small penetrating wound of entrance, I introduced my finger, which followed readily the track of the bullet, between the integument and fascia

lata. Nearly two inches below the wound of entrance, I came upon a slit through the fascia; into this I forced my finger, and upon withdrawing it there was a gush of blood which could come only from a wound of a large vessel. The amount of blood lost did not exceed two ounces, when I arrested it with pressure, firmly applied. The patient etherized, I cut down and found the femoral artery wounded near the apex of Scarpa's triangle, at which point I applied the ligature, above and below the wound. The bullet was not found. The recovery was complete, without gangrene.

I may say, in this connection, that in three of the instances to which I have alluded, was verified the apparently anomalous, and, as far as I am aware, inexplicable phenomenon, to which Dr. Cheever first drew my attention; viz., a rise in the temperature of the foot immediately after the ligation of the iliac or femoral arteries. As collateral circulation is established in the limb, the temperature resumes a normal degree, but gradually becomes lower in those instances in which death of the limb follows.

The object of this review of these cases is an explanation of the cause of gangrene in some instances of ligation of large arteries, and the absence of gangrene in other instances.

It may be offered that in the case of aneurism, lasting for years, the obstruction to circulation is slowly effected, and that collateral circulation is established in a gradual, compensatory manner; so that, when the supply of blood is finally cut off by the ligature, the circulation is so well established that the integrity of the limb is preserved.

This idea could not be advanced in explanation of the safety of the limb in the last instance which I detailed, for, in this, the entire blood supply was suddenly cut off, and the demand for collateral circulation as suddenly made; still the limb did not die.

An unfortunate case occurred in the practice of a medical friend, which, also, would not admit of this explanation. A man presented himself with a tumor of the groin, just below Poupart's ligament. This was mistaken for an abscess, and opened in a very heroic manner. A profuse hæmorrhage followed the incision, which was not controlled till the femoral artery had been tied above. Extensive gangrene and amputation of the limb followed. Further examination showed the tumor to be an aneurism.

It cannot be denied that the situation of the ligature is of great importance in the consideration of the cause of gangrene,—as we approach the aorta, the avenues of collateral circulation are diminished.

That the point of ligature is not alone the determining cause of gangrene, seems proved by the result in the second case of this review—of the old man with the aneurism, in whom the ligature was applied to the external iliac, near its origin, yet no death of the limb supervened. And further by Dr. Pineo's case, in which the ligature was applied to the femoral, far below the origin of the great profunda, notwithstanding which there was extensive gangrene of the limb.

A study of these and other cases has convinced me of an existing relation between the loss of blood and the death of the limb.

To recapitulate: in those cases where the hæmorrhage had been profuse, gangrene followed; while in those instances of ligature for aneurism, and for a wound of the artery, *in which the loss of blood was inconsiderable*, the integrity of the limb was maintained.

The reason of this is obvious: the circulation through one lower extremity comprises, in extent, nearly one-fourth of the entire arterial circuit; cutting off the blood supply from one-fourth of the arterial circuit, the normal column of blood not diminished, throws a greater volume of blood into the still patulous arterial circuit; produces, in fact, a congestion; which congestion, *cæteris paribus*, is the condition most favorable for the rapid dilation of the branches of the vessel which has been cut off. In other words, the heart, having an abnormally large volume of blood to propel, a volume too large for the diminished arterial circuit, forces, mechanically, the establishment of a collateral circulation.

On the other hand, when there has been a great loss of blood, the diminished volume, now abnormally small, will be propelled through the branches of the occluded, or ligated vessel, only to the extent of distributing the blood uniformly; that a collateral circulation is established proportionate, in extent, to the volume of the blood; further, the death of the limb is most extensive when the hæmorrhage has been greatest.

The truth of this dependence of the death of the extremity upon the loss of blood, can only be determined by a more extended observation than I have yet had. If correct, this thought may have some practical value; first, in emphasizing the indication which already exists, viz., to save all blood possible. Secondly, it has some prognostic value; for, in a given case, if the hæmorrhage has been profuse, we are enabled to foretell the death of the limb.

A VERY LARGE TUMOR OF THE FACE AND NECK TREATED BY CAUSTICS.

By W. R. HOWES, M.D., of Hanover.

Mr. S. T., of South Scituate, farmer, aged 53 years, in May, 1873, showed me an enlarged parotid gland of the right side, and wished advice in regard to treatment. He stated that it had been growing nine months, and for the most part of the time had caused him much pain.

It was about the size of a hen's egg, quite movable, smooth, firm and elastic. He was advised to have it removed by excision without delay, but neglected to do so until the last of August, when it had become so formidable that the surgeon to whom he applied assured him that such an operation was impracticable.

Sept. 6th.—The tumor is growing with frightful rapidity, and has doubled its size within a month, measuring $10\frac{1}{2}$ inches across, and projecting two-thirds of the distance to the points of the shoulder upon which it rests.

The surface is of a purplish red color and very vascular; but there is no appearance of ulceration, though, for two months, there has been a profuse discharge of transparent serous fluid, which leaks out through numerous minute openings. The skin around the base appears perfectly healthy, and the infiltration probably does not extend beyond the limits of the growth.

The patient is not cachectic, though much weakened and emaciated by suffering. A rigid adherence to regimen for two weeks has slight-

ly improved his condition, and he is now very importunate that some means should be tried to alleviate his distress.

With the intention of arresting the rapid cell-growth, an ounce of dilute acetic acid (40 per cent.) is injected into the upper and posterior parts, where it is well retained.

Sept. 8th.—The acid has not increased the pain, but there is considerable irritation at that spot, as shown by increased redness and swelling on the surface.

Sept. 10th.—The irritation has subsided and the skin is brown, lax and wrinkled. Injection repeated.

Oct. 8th.—The acid was injected at intervals of three or four days, for a fortnight, when an opening appeared in the skin near the apex, plugged with a brown slough. This was loosened by a linseed poultice, and some shreds of lint saturated with a very strong solution of chloride of zinc were inserted by the side of it, and in a couple of days it came away, leaving a cavity about as large as an English walnut, which was packed with lint saturated as before, and this dressing has been repeated daily, removing the debris as thoroughly as possible without causing pain, until the cavity measures $3\frac{1}{2}$ inches and the opening $1\frac{1}{2}$ inches in diameter. The substance around this cavity is firm, the surface wall standing out rigid, like a shell, maintaining the form of the tumor, which is now considerably diminished in size. An attendant says, "It is just the place for a bluebird's nest," and the conceit is not inapt.

There has been no hæmorrhage except a slight oozing when scraping out the debris closely. The opening in the skin does not enlarge by ulceration, but the margin crumbles away by a process of disintegration; and in this manner another opening is beginning to form about two inches from the first, towards the cheek, where the shell has become thin.

The substance removed is of a greyish color, and consists, for the most part, of fibrous shreds and patches, resembling the husks of the cocoa-nut, or fragments of rotten Manilla cordage.

The patient is cheerful, eats and sleeps well, takes plenty of outdoor exercise, and is almost free from pain, except for a few hours after the dressing. His general health is very much improved. Same applications continued.

Oct. 25th.—The isthmus of skin between the openings has separated, and the shell retracts from the centre and turns outward, presenting a concavity as large as a coffee-saucer and almost as deep. As the lint cannot be confined conveniently, a paste is substituted, made of the chloride of zinc and wheaten flour. This is spread upon cloth and covered with cotton batting.

Nov. 4th.—At the anterior margin, the shell is removed to a level with the healthy skin, and a perfect line of separation is deepening between this and the slough. To-day, the patient has violent erysipelatous inflammation of the eyelids, nose and lips, caused by exposure to cold and dampness, necessitating a suspension of the caustic.

[This inflammation was relieved in a few days, but the demoralizing effect was signally unfortunate. Hitherto quite patient and yielding, he now became peevish and intractable. It was the last straw to the camel's back, and from this time he could never be prevailed upon to take exercise and nourishment as the urgency required.]

Nov. 18th.—A slough has separated from the anterior half of the ulcer as far back as the ramus of the jaw, exposing a clean, healthy, granulating surface, which is dressed with carbolic acid and glycerine.

Dec. 4th.—The remainder of the disease has sloughed out, leaving an ulcer which measures five and a half inches in diameter, and appears healthy throughout. The anterior portion has been healing satisfactorily for several weeks.

Dec. 20th.—The ulcer now measures four and a half inches at its longest diameter, and is healing very slowly, though there is nothing unfavorable in its appearance.

The patient has taken no exercise of consequence for more than six weeks, and takes nourishment unadvisedly and irregularly. Though getting more anæmic, his strength and appetite are quite good, and he is hopeful. When urged to observe a regimen which he is assured must be an essential condition of recovery, he replies that his flesh heals so readily that the sore will get well under any circumstances.

From this time there was little healing, and gradual failing of the general health until Feb. 20th, when he died without suffering. For a week previous, the surface of the ulcer was covered with an ash-colored exudation; there being scarce any discharge, and so little pain that the patient declared he should not know it was there from any suffering it caused.

Progress in Medicine.

REPORT ON ANATOMY.

By THOMAS DWIGHT, JR., M.D.

(Concluded from page 231.)

THE CIRCULATORY SYSTEM.

Observations and Notes on the Arteries of the Limbs.—Mr. Thomas W. Nunn, of London, writes on this subject in the *Journal de l'Anatomie et de la Physiologie*, Jan. et Fev., 1874. Though he does not give much that is new to the practical anatomist, and though some of his ideas are purely fanciful, his general plan may be of use to teachers and students. The main artery of each segment of a limb divides into two chief trunks, of which one runs onward, giving off few branches, and but slightly decreasing in size, to carry the blood from that segment to the next, while the other divides into a number of small branches going to nourish the segment in which it arises. Nunn calls these two chief trunks the transegmentary and segmentary, respectively. As typical examples of the first kind, we have the external iliac, the femoral and the posterior tibial; of the second, the internal iliac, the profunda and the fibular. In the upper extremity, at least above the elbow, the plan is not quite so simple. The segmentary arteries are smaller and given off separately, instead of from a common trunk; but Nunn shows that, in anomalous cases, there is a tendency to return to the typical plan; thus Quain has shown that, in 115 out of 478 cases, the superior and inferior profunda arteries, sometimes with other branches, are given off from a common trunk. So far Mr. Nunn's generalizations are very good; but he goes on to form two

more classes, one of anastomotic and one of composite arteries, that are so wanting in definite characteristics and so liable to variation that they tend solely to confuse.

THE CEREBRAL CIRCULATION.

H. Duret, whose researches on the circulation of the medulla oblongata we have noticed in a previous report, has published a very valuable and exhaustive paper on the circulation of the brain, in the first two numbers for 1874 of the *Archives de Physiologie*. The remarks on the circle of Willis are interesting and of practical value. Although there is considerable variation in the size and points of origin of the branches of the internal carotid, the ophthalmic arises always from the main trunk; an arrangement calculated to preserve the circulation of the eye and the anastomosis with the external carotid, in spite of the closure of both the anterior and middle cerebral. The posterior communicating, on the other hand, frequently arises from the middle cerebral instead of the carotid; a variation of some importance. Indeed, it seems as if the abnormal arrangement were the most desirable, for if a clot too large to enter either of its subdivisions be arrested at the end of the internal carotid, the circulation in the middle cerebral cannot be reestablished except by very devious and insufficient channels; but if the posterior communicating open into it, it will be supplied from the posterior cerebral. In either case, the anterior cerebral will be supplied from the other side. The author dwells on the scarcity of communications of the branches of the carotids with each other and with those of the opposite side, and states that the branches of the vertebrals anastomose freely. The arteries of the corpora striata are divided into an external and an internal group, and come from the middle cerebral, excepting a few inconstant ones from the anterior. Their course, at first, is upward and outward, after which they turn forward, forming externally convex curves. They have no anastomoses with other arteries, nor with each other, and end in small "brushes" of branches. The arteries of the optic thalami are similarly arranged, and come from the posterior cerebral, the posterior communicating and the choroid arteries. The veins of these bodies, though larger, are less numerous than the arteries. Duret mentions, in this connection, that he never has been able to inject the veins of Galen from any tributary of the longitudinal sinus.

The terminal branches of the arteries of the convolutions may be divided into two sets, those of the pia mater and those entering the substance of the brain. Small arteries, ramifying in the pia mater, are given off directly from the larger as well as from the smaller branches, and it is from the finest that the small nutrient arteries descend directly into the cerebral substance. Duret denies the existence of the network of arterial anastomoses usually described in the pia mater, and explains that one cause of error is that the vessels often lie in two layers. He admits, however, that there are some communications between the arteries of the same side and between the two posterior cerebrals. In view of this paucity of anastomoses and of the present popularity of the theory of the localization of the cerebral functions, it is worth while to give a general account of the author's researches into the source from which the convolutions are supplied. Though unfortunately retaining the antiquated nomenclature of Leuret and Gratiolet, the author has used Ecker's diagrams, and in this report we shall adopt the system of the latter.

The *anterior cerebral artery* gives off several small branches, which supply the under surface of the inner half of the frontal lobe, that is, as far as the H-shaped *sulcus orbitalis*; also the upper surface of the first and second frontal convolutions and the superior part of the anterior cerebral convolutions, sometimes, indeed, passing the top of the fissure of Rolando. The branches of this artery extend, on the inner surface, as far as the *parieto-occipital* fissure, while the arteries of the *corpus callosum* curve round its posterior border, and then run forward, sometimes reaching the posterior commissure.

The *middle cerebral artery* runs in the fissure of Sylvius, and is distributed almost entirely to the convexity. The first branch given off supplies the celebrated third frontal convolution. One branch runs up the fissure of Rolando, and the others supply the outside of the brain as far back as the *parieto-occipital* fissure, and in the temporal lobe back to just beyond and parallel to the *superior temporal* fissure. In short, this artery supplies the parietal and a part of the frontal and temporal lobes.

The *posterior cerebral artery* supplies the occipital lobe and the remainder of the temporal lobe. On the inner surface, it gives to all the convolutions posterior to and below the *parieto-occipital* fissure.

In considering the veins of the surface, Duret attaches great importance to the "grande veine anastomotique" described by Trollard, which, leaving the superior petrosal sinus about its middle, runs in the thickness of the dura mater till it reaches the fissure of Sylvius, where it becomes (or joins) the Sylvian vein, which is of considerable size, and empties into the superior longitudinal sinus. With this exception, the author thinks that too much importance has been assigned to the communications between the veins of the base and of the convexity. He is convinced that the alleged system of anastomoses between the arteries and veins of the pia mater has no existence.

There is little to be said of the nutrient arteries of the convolutions. As already intimated, they are very minute, and may be divided into the cortical and medullary, the former of which end in the grey matter, while the latter penetrate to and ramify in the white.

DR. BRUNTON and Mr. Henry Power, in the *Centralblatt* for July 4th, bring forward reasons founded on some experiments of theirs for rejecting the prevalent theory that digitalis increases the flow of urine by raising the blood pressure in the arterial system. They injected digitalin in considerable doses into the veins of a dog, and drew off its urine by means of a catheter. The injection was followed by great diminution, or even total suppression of the flow of urine, while the blood-pressure rose simultaneously. The authors are inclined to explain the diuretic action of digitalis by assuming that it stimulates the vaso-motor nervous system generally, while it exercises a special action on the vaso-motor nerves of the kidney. From this results a moderate contraction of the vessels of the whole body, with consequent increase of the blood-pressure; while in the kidney the contraction is excessive, and so puts an end to the flow of urine. As soon, however, as the stimulus to the vaso-motor nervous system is removed, the vessels of the kidney relax quickly, and more completely than the system vessels, so that the tension of the blood in the glomeruli of the kidney is still above the normal, although that in the general circulation is below it. This theory is further supported by the fact that albumen appears in the urine after the reëstablishment of the secretion.

Bibliographical Notices.

Experimental Researches on the Physiological and Therapeutic Action of the Phosphate of Lime. By L. DUSART, Ex-interne des Hôpitaux. Second Edition. Paris: 113 Faubourg St. Honoré.

THE original book of Dr. Dusart is a medical work of some value, upon phosphate of lime as a reconstructive tonic and upon the lactic acid solution as an eligible preparation thereof.

The present so-called second edition is an English translation of the same, ingeniously arranged as an advertisement, and published by a wholesale drug house in Paris, having an introduction, evidently intended to be read as from Dr. Dusart, but *not bearing his name*, and containing the only too familiar talk about the inferior preparations of other manufacturers, a little virtuous indignation at the frauds by them practised upon a suffering public, &c. &c. The only reliable preparation is, of course, clearly indicated on the covers. If our readers wish to read Dr. Dusart's book, we hope they will, if possible, read the original, and if they are thereby or otherwise convinced of the value of syrup of lactophosphate of lime, let them not trouble themselves about the French preparation, with anybody's name on the label, but get it from any of the respectable American pharmacists who can and do make just as good a medicine.

BOOKS AND PAMPHLETS RECEIVED.

The Complete Handbook of Obstetric Surgery; or Short Rules of Practice in every Emergency, from the Simplest to the most Formidable Operations connected with the Science of Obstetrics. With numerous Illustrations. By Charles Clay, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, &c. &c. From the third London Edition. Philadelphia: Lindsay & Blakiston. 1874. Pp. 328. (For sale by James Campbell.)

Surgical Emergencies: together with the Emergencies attendant on Parturition and the Treatment of Poisoning. A Manual for the use of General Practitioners. By William Paul Swain, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. With eighty-two Illustrations. Philadelphia: Lindsay & Blakiston. 1874. Pp. 189. (For sale by James Campbell.)

Transactions of the twenty-first Annual Meeting of the Medical Society of North Carolina, held at Charlotte, N. C., May, 1874. Raleigh, N. C. 1874. Pp. 132.

The Relation of Medical Societies to Progress in Science. Inaugural Address of the President of the Medical Society of the County of Kings, New York, Alex. J. C. Skene, M.D., June 16, 1874.

Protection of Animals. By George T. Angell, President of the Massachusetts Society for the Prevention of Cruelty to Animals. Read at the Annual Meeting of the American Social Science Association, 1874.

Clinical Report of the Lying-in Service at Bellevue Hospital, for the Year 1873. By Wm. T. Lusk, M.D. Reprinted from the New York Medical Journal, August, 1874. New York: D. Appleton & Co., 549 and 551 Broadway. 1874.

Smithsonian Miscellaneous Collections. 279. The Toner Lectures, instituted to encourage the Discovery of New Truths for the Advancement of Medicine. Lecture III. On Strain and Over-action of the Heart. By J. M. Da Costa, M.D. Delivered May 14, 1874. Washington: Smithsonian Institution. August, 1874.

Address of Joseph M. Toner, M.D., President of the American Medical Association. Extracted from the Transactions of the American Medical Association. Philadelphia, 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 10, 1874.

THE New York daily papers recently contained detailed reports of a "Children's Party" at Long Branch, wherein is told with all the enthusiastic rhetoric of the modern school of Bohemianism the story of fine dresses, dazzling jewels, elaborate *coiffures*, late and indigestible suppers, and all the incidents of a fashionable juvenile dissipation at night. It is said that the gentlemen of seven years and the misses of five successfully imitated the social ways and mannerisms of their elders, and that in all respects the dancing, the flirting and the eating were the miniature presentment of adult excesses in the same directions. To the spectators, such an exhibition was doubtless very exhilarating, and the over-dressed mothers believed their over-dressed children were in excellent training.

To us, such a spectacle seems a mockery and a crime; not on its moral side alone, though that is suggestive enough, but because of the physical risks indirectly involved. Recreation is healthful, but when it takes on such an intemperate guise as that described at Long Branch, a type of dissipation much too frequent at resorts of fashion, it is time to protest in the name of common humanity. These children, thus subjected to the exciting and stimulating conditions which full-grown manhood hardly endures without paying grievous penalty, are the buds of promise—not of healthy, well-developed maturity, but of a forced, weakly, unfruitful growth. If such unfortunate germs live (for the chances of living are certainly against them), they will surely appear in the note-books of physicians, in good time, representatives of a numerous class in both sexes—the men, enfeebled and impotent in mind and body, the women anæmic, sterile, the ready victims of gynæcological quackery. Surely there is opportunity enough for reform in education as touching the physical penalties involved; but the reform should begin at the beginning. Whatever errors and prejudices the critics of Dr. Clarke's "terrible little book" may have betrayed, they have been right in this respect, that the seeds of evil are frequently sowed long before physiological periodicity is tampered with. May we not have a Society for the Prevention of Cruelty to Children?

It is generally a discouraging as well as an unprofitable task to peer into the mysteries of the mixtures sometimes called "proprietary"

medicines, more vulgarly denominated "quack remedies." But there is also an entertaining side to an inquiry into the profundities of these medicinal compounds which are made to sell. That peculiar trait in human nature which John Foster christened gullibility, finds manifold methods of contentment. Chemists have made known the proportional amount of alcohol which constitutes the inspiration of the various kinds of "bitters"; and "soothing syrups" and "cough balsams" in vain pretend that their soporific charm is due to something besides opium. Little cares the great public for the warnings of science; for the public loves to be cheated.

Just now a passing fashion is the swallowing of gallons of vile stuff called mineral water. Quite unlike the alcoholic and the opiate preparations by which men are made drunkards and infants drugged out of the world, these waters do good by their harmlessness. We have amused ourselves recently by a cursory glance at the merits of one of these health-bestowing blessings in quart bottles, and make no apology for drawing attention to the wonderfully little required to accomplish miracles of healing. The sample under inspection is called "Nature's great Remedy." By the aid of the State Assayer of Massachusetts, we are enabled to give our readers and the public its exact composition. The figures are as follows:—

"ONE UNITED STATES GALLON CONTAINS

Sulphate of potash	0.101 grains.
Chloride of sodium	0.447 "
Bi-carbonate of soda	0.218 "
Bi-carbonate of lime	4.168 "
Bi-carbonate of magnesia	0.867 "
Sulphate of lime	0.811 "
Silica and alumina	0.043 "
Protoxide of iron	2.161 "
Organic matter ("crenic acid")	2.888 "

It is a chalybeate mineral water, containing an uncommonly large proportion of iron in solution, and it will act as a strong tonic."

Now, as may be seen, every gallon contains of this valuable material the enormous amount of 11.674 grains. Four hundred and eighty grains make one ounce, and every gallon of Nature's great Remedy contains nearly $\frac{1}{4}$ of an ounce of mineral matter, and organic matter known as crenic acid, which latter is found in all soil rich enough for a plant to grow in. That is to say, this Unitoga Spring gives pretty good and pure water, quite as pure as can be found in most wells in the neighborhood of Boston.

To make "Unitoga" at home, for those whose well-water is not sufficiently impure to be medicinal, we have translated the chemical names and given the weights, approximately in fractions of an ounce, which look less formidable than decimals:—

Sulphate of potash	$\frac{47}{52}$	of an ounce.
Common salt	$\frac{11}{51}$	" " "
Bi-carbonate of soda	$\frac{22}{11}$	" " "
Chalk	$\frac{1}{15}$	" " "
Bi carbonate of magnesia	$\frac{1}{53}$	" " "
Plaster of Paris	$\frac{1}{51}$	" " "
Flint and clay	$\frac{11}{62}$	" " "
Protoxide of iron	$\frac{22}{5}$	" " "
Crenic acid (soil)	$\frac{1}{65}$	" " "

Mix the above carefully, and add sufficient clean water to make one gallon. If protoxide of iron be not readily obtained without troubling the market, it may be easily furnished by stirring the mixture with an iron spoon, or allowing a board nail to remain in the mixture over night.

Another water from the same company contains less of the minerals, according to our State Assayer, but "it is highly charged with sulphuretted hydrogen." This can be easily obtained by using for a vehicle the water from some well near to which runs a drain.

IN the last two numbers of the *Obstetrical Journal of Great Britain and Ireland*, the American supplement contains a continued article by Dr. William Goodell, the President of the Philadelphia Obstetrical Society. The paper relates to the management of obstetrical cases at the Preston Retreat, of which Dr. Goodell is the Superintendent; it is marked by such a degree of originality as to make it almost a new departure in obstetrical science. We have not space to comment at length on the various topics discussed, but we can fully commend them as suggestive and sensible, if rather startling to conservative minds. One fact is modestly put forth by the author as the result of his measures at the Retreat, namely, that out of 756 cases of midwifery there treated, there have been only six deaths, or a mortality of .8 per cent. The key-note of Dr. Goodell's practice is found in the following quotation from his paper:—"Labor is, in general, a strictly physiological process, and there is no reason why it should be made to wear the livery of disease." He discards all the paraphernalia usually found in the lying-in room—the bed-pan, the syringe, the antiseptic and detergent lotion, the obstetric binder, the traditional "milk-fever" purge, and allows the patient to follow pretty nearly her natural inclinations in all respects. Surely, the Superintendent of the Preston Retreat is not addicted to "meddlesome midwifery," and, considering the fact that hospitals do not have selected favorable cases as a general thing, but the contrary from necessity, a very excellent showing is made as the result of such open defiance of traditional methods. The paper deserves much attention.

IN France, as in England and elsewhere, the respective authorities and the public in general are just now taken up with the question as to the most suitable manner of disposing of their dead, as, in large cities like London and Paris, these occupy so much ground as to become an embarrassment to the living. To obviate the inconvenience of overcrowding, the different governments of France have established cemeteries outside of the walls of the city, or rather, as far as possible from the centres; but the space allotted to the dead and the living, however far apart they may have been originally, soon unite, and, in course of time, they are obliged to seek other ground for the burial of the dead. This removal of the cemeteries at a distance from town is attended with great inconvenience for the proper performance of the funeral ceremonies practised in Christian countries. But, besides these considerations, there are others of equal, if not of greater importance, which ought to be taken into account; I refer to the public health. With the exception of a few of the old school, or *routiniers*, it is admitted by all hygienists that the situation of churchyards or cemeteries in the midst, or even in the vicinity of, living population must be prejudicial to their health. It is this grave question that has led the public mind to the consideration as to the expediency of resorting to the ancient mode of disposing of the dead by incineration or cremation. But, although this question is being agitated in France, or rather, in Paris, I do not think that the French will readily take to cremation, as, notwithstanding their revolutionary spirit, they are great *routiniers*; besides which, if they have no respect for anything in this world, they have great veneration for the dead; and nothing will convince them that cremation will not tend to abolish this sentiment, and the religious rites proceeding from it.—*Paris Correspondent of the British Medical Journal.*

AN extract from the report of the Royal Commission on Scientific Instruction and the Advancement of Science, of which the Duke of Devonshire was chairman, for investigating the condition of the various National Scientific Museums, states of the Museum of the Royal College of Surgeons of England:—

"This collection of human, comparative and morbid anatomy was founded in the last century by the celebrated John Hunter. After his decease, the Hunterian collection was purchased by the Government and placed in the keeping of the Royal College of Surgeons, subject to periodical inspection by a board of trustees, which is kept up by coöptation of new members as vacancies occur. Since the collection came into the possession of the College, it has been vastly extended and enriched, and is now probably the most complete and best arranged museum of its kind in existence. It is freely accessible to students; and lectures to members of the College, to which any person interested readily obtains admission, are delivered, on comparative anatomy, by the Conservator, Professor Flower, and, on surgical subjects, by Fellows of the College appointed to that duty, from time to time, by the Council.

"For the purchase of the original or Hunterian collection, and in grants for buildings, the nation has contributed £57,500 towards the expense of this museum; but the entire expense of its maintenance and continued extension, amounting to about £2,500 a year, is discharged by the College out of the fees payable by candidates who pass the examination for the College diploma; and the aggregate sum which has been thus expended far exceeds that supplied by the State.

"The comparative anatomy division of this museum, besides a great osteological collection, contains an extensive series of preparations of the internal organs and other dissected parts of animals, preserved in spirits. Preparations of this description are requisite for a well-grounded study of zoology; and, as no such series exists in the British Museum, this part of the College of Surgeons' Museum may be regarded as supplemental to it. But, although it might seem, on this account, desirable to incorporate the comparative anatomy division of the College of Surgeons' Museum, in whole or in

part, with the zoölogical collections of the British Museum, there appear to be serious objections to such a measure. For, in the first place, by far the greater part of the collection in question being the property of the College of Surgeons, a very large outlay of public money would be required for the purchase of it, were the College willing to part with it, which we have no reason to think probable. Again, so large an increase of spirit preparations in the British Museum would increase the risk of destruction in case of fire; and, lastly, the transference of the comparative anatomy collection to South Kensington would render it much less conveniently accessible than it is at present to students attending medical schools, who now make use of it.

"Should the fund at the disposal of the College, owing to changes in medical legislation, or from any other cause, prove inadequate for the efficient maintenance and continued extension of the museum, we are of opinion that it should receive support from the State as an institution intimately connected with the progress of biological science in this country. At the same time, there seems to be no sufficient reason why it should, in such a case, pass from the custody and management of the College, under which it has so long and so greatly prospered."

Amongst the donors to this interesting collection are Professors Gervais, of Paris, Julius Haast, Quatrefages, Sir William Fergusson, Captain Harris, Drs. Fayrer, Watts, Dowse, Goodhart, &c., and Messrs. W. M. Baker, T. C. Jackson, J. Birkett, J. Gay, Rivington, McCarthy, Crowther, Garrod, Duncan, Mrs. Wormald, &c., and, as usual, the Zoölogical Society, the Smithsonian Institution, &c.—*British Medical Journal*.

INFLUENCE OF CHLOROFORM IN LABOR UPON THE FÆTUS.—Dr. Zweifel, of the Obstetric Clinics in Strasbourg, has recently made some investigations that would seem to imply that the anæsthetic administered to women in labor has more effect upon the fœtus in utero than is perhaps generally admitted. Dubois has made the statement that anæsthesia of the mother causes increased rapidity of the fœtal heart-beats. The writer had often observed an appearance of icterus upon newly born children after the use of chloroform, but could not with certainty attribute it to the latter. His attention was at first seriously arrested by perceiving in the breath of an infant, born a few hours before, a distinct odor of chloroform. The child had been extracted while the mother was under the influence of the anæsthetic, but since the delivery had lain in a room by itself, where no chloroform had been used. Shortly after this, in order to determine positively whether the anæsthetic was conveyed to the fœtus through the maternal circulation, he instituted the following test:—A fresh placenta that had just been expelled by a woman to whom chloroform had been administered for only about fifteen minutes, and more than an hour previously, was placed in a close-fitting vessel, having first been cleansed of all adhering clots. The following day, when the vessel was opened, a decided odor of chloroform was perceived, and further examination proved conclusively the presence of the drug. By still another test (the examination of the child's urine), the writer was able to establish the fact of the influence of the anæsthetic upon the fœtus. In conclusion, the writer observes that, since the use of narcotics in general are contra-indicated in infants, it is an important question for obstetricians to decide, to just what degree anæsthesia may be carried in women in labor with impunity to the fœtus.—*Berliner Klinische Wochenschrift*; *New York Medical Record*.

THE TREATMENT OF HYDROCELE BY ALCOHOLIC INJECTIONS.—It is only about a year ago that the treatment of hydrocele by alcoholic injections was all the rage in the Paris hospitals, but from the disappointment met with as to its curative powers, the method is already consigned as a thing of the past. M. Tillaux, of the Lariboisière Hospital, and others have given it a fair trial, but they were obliged to have recourse to the iodine cure,

as relapses had occurred after the alcoholic injections. M. Tillaux, however, has hopes of its utility in children. He injects about fifteen drops of a strong alcohol into the tunica vaginalis, leaving, as with adults, the fluid of the hydrocele in the sac; but further experience is necessary before an opinion can be formed as to its efficacy in these cases. A Dr. Surmay, a provincial practitioner, has somewhat modified Dr. Monod's plan of leaving the fluid in the tunica vaginalis, and before injecting the alcohol he draws off the fluid, so that the alcohol which he employs, pure but weak, is in direct contact with the serous cavity, and thus produces a sufficient degree of inflammation to effect obliteration. He has found one injection insufficient, and has recourse to a second, which in general effects a cure. Out of twenty cases treated in this way he has had eighteen cures, but time alone will decide whether these will be permanent.—*Paris Correspondence of the Medical Times and Gazette.*

PULSATION is frequently seen in the epigastric region. Sometimes this is associated with absence of the apex-beat from its usual position, and is to be regarded as one form of its displacement—a displacement which may be brought about in various ways, the commonest of these being dilatation of the right ventricle, by which the left ventricle is pushed backwards, the right one communicating its impulse to the lower part of the sternum and to the liver, which is then seen to pulsate in the scrobiculus cordis. It may be doubted if such pulsations are ever visible in a perfectly normal condition of the heart and neighboring organs. Assuredly, they are often seen where no actual cardiac disease exists; simple dilatation of the right ventricle is invariably more or less present when pulmonary congestion exists, even from such simple and temporary causes as strenuous exertion or bronchial catarrh; and whenever dilatation of the right side exists to any considerable extent, epigastric pulsation may be seen. It is rendered more perceptible by any cause which may effectively conduce to the transmission of such impulse to the abdominal walls. Thus it is sometimes favored by the existence of effusion in the pericardium; but especially by the occurrence of enlargement of the liver, which is so frequent a concomitant of dilatation of the right ventricle. Indeed, in such circumstances, the systolic impulse of the venous regurgitation itself is occasionally so great as to induce actual pulsation of the whole liver, a pulsation which is then visible, not merely in the scrobiculus cordis, but throughout the whole right hypochondriac region; an extent of hepatic pulsation which is not, however, always distinctive of great venous regurgitation, as it is occasionally seen as the result of the impulse communicated by a large aneurism lying immediately above the liver.—“On the Diagnosis of Disease of the Heart,” by GEO. W. BALFOUR, M.D.—*Edinburgh Medical Journal; Medical Times and Gazette.*

IN further examining the condition of our patient, we first feel both radial pulses simultaneously, noting whether the arteries are firmer or more tortuous than usual (atheroma). If there be a marked difference between the two radial arteries, we feel both brachials simultaneously; if these be equal, the difference between the two radials is due to irregular distribution. If the brachials differ, in all probability there is some abnormal physical cause to account for it—possibly an aneurism. Should the radial pulses be equal and regular, but small and feeble, we elevate the wrist to a level with the head, if the patient be standing or sitting; if lying, we elevate the arm to its full length perpendicularly to the body. Should the pulse then become extinguished, or nearly so, the patient is anæmic, and possibly anæmia is his sole disease, but we must never, under any circumstances, rely upon one symptom, however apparently trustworthy, but merely note it as an aid and a guide in our further investigation. Should the pulse, after elevation of the arm, remain still small and feeble, but distinct, the cardiac disease, if present, is mitral. Irregularity of the pulse confirms this suspicion; extreme irregularity points to the probability of the affection of the mitral valve being constriction rather than dilatation. Should the small, feeble, and possibly ir-

regular pulse remain, not only distinct after the elevation of the arm, but become more so, the systolic impulse being followed by such a sudden and complete collapse as to render the impulse apparently more marked, then we have to do with a double lesion, a mitral and also an aortic regurgitation. This form of pulse is, however, not always well marked; in many cases it is not easy of detection, and is therefore not to be relied upon unless the collapse is distinct. In simple aortic regurgitation, however, the peculiar sensation conveyed to the finger, and well known by the terms hammer or Corrigan's pulse, is usually well marked, and frequently so greatly increased by elevation of the arm as to become almost painful, and wholly unmistakable.—"On the Diagnosis of Disease of the Heart," by GEO. W. BALFOUR, *Edinburgh Medical Journal*, June, 1874—*Medical Times and Gazette*.

Correspondence.

SELF-REGISTERING THERMOMETERS AGAIN.

PROVIDENCE, Sept. 5, 1874.

MESSRS. EDITORS,—Having had the same difficulties as Dr. Barnes describes in his note upon repairing self-registering thermometers, and not ever succeeding with his plan of restoring the index, permit me to suggest another method.

Cool the bulb till a small space is visible above the mercury, then quickly invert the instrument, and, holding it perpendicularly between the thumb and fingers, strike a sharp blow—ramrod fashion—upon a thick and not too solid rubber eraser laid flat upon the arm of your chair. A minute portion of the mercury will so be thrown past the empty space into the tube, and may be shaken further up to serve as the index. If it is not of the right size, shake it back into the bulb and try again.

The instrument I have used has been a plain straight one, graduated on the tube; but I think this plan can be tried on any instrument, if it be carefully held.

Yours respectfully, CHARLES H. LEONARD, M.D.

LETTER FROM MUNICH.

MUNICH, August 15, 1874.

THE museum here is a model; not so large, indeed, as some I have written of, but in admirable order and well nigh perfect in its way. The pathological collection is separate and comparative anatomy is almost wholly excluded, so that it is all but exclusively devoted to normal human anatomy, to teach which is its *raison d'être*. Among the most noteworthy features are the specimens of embryology, near which are beautiful wax models of the early stages of certain mammalia, made to illustrate Prof. Bischoff's original researches. Prof. Rüdinger has just completed some series showing the development of some of the facial bones. He has made, also, many excellent sections of the temporal bone, with the foramina and grooves painted in different colors, for greater convenience of demonstration.

Frozen sections abound, not only those through the joints, but others through the entire body. Though the latter are not all placed in the museum itself, I had the opportunity of seeing one which is figured in Rüdinger's topographical anatomy, which is now in course of publication. It was a vertical antero-posterior section through the right side of the body, traversing the lung, liver, kidney, intestines, as well as the scapula and the hip-joint. It was perfectly preserved in spirits. Some may think that in the Munich school the use of frozen sections is carried to excess; and it certainly is true that no student can understand them until he is tolerably familiar with the shape of the various structures as taught in descriptive anatomy, but it is held here that it is not necessary to be very far advanced in the latter before he can grapple with topography, but that, on the contrary, the study of one of these branches helps that of the other.

Here are also Rüdinger's magnificent corrosion preparations and many of his dissections photographed in his works on the ear and on the nerves. The finest of these is that showing the distribution of the sympathetic and pneumogastric. The nerves do not show quite so clearly in the specimen as in the pictures, but nevertheless there is nothing figured in the latter that does not exist in the former. If the museum has a weak point, it is in preparations showing the fasciæ, which are almost wholly ignored; but it is only in France that the same criticism may not be made of any museum. I have mentioned only the most striking features, but the museum is full of ingenious preparations for the illustration of special points, which go far to enhance its value.

T. D., JR.

LETTER FROM VIENNA.

[From our Regular Correspondent.]

VIENNA, AUSTRIA, August 2, 1874.

MESSRS. EDITORS,—The cholera conference has closed its labors, for the present, with the twentieth meeting.

Yesterday, the members of the conference gave a dinner party in honor of their President, Baron von Gager, in Hitzing. They exchanged their photographs with each other, and parted in the most friendly and cordial manner. They signed, also yesterday, the *Protokoll*, and the President declared the session of 1874 closed. Two Spanish delegates appeared a few days ago, but no one from the United States. On account of the non-appearance of any representative from our country, the discussion regarding the yellow fever question has been postponed to some future day.

The conference have agreed to suggest to the governments which they represent to send a delegate to a permanent congress, the headquarters of which are to be in this city. This scientific body shall send competent persons to all the places where zymotic diseases occur, for the purpose of studying the same, their causes, their extent, and make such suggestions as will tend to prevent their propagation; to examine all the known disinfectants and publish the mode of treatment which, in their opinion, might be best adapted to cure patients affected with contagious diseases. It is to be hoped that the coöperation of all the civilized nations on the face of the globe will be represented at this congress, and thus be always informed of the occurrence of any contagious disease in any part of the world.

The President made a parting speech, of which the following is the substance:—"Arrived at the end of our labors, the conference deems it necessary, in an act signed by all the members present, to enumerate or to recapitulate all the resolutions that were adopted and passed, in order to answer all the questions that were contained in their programme. As one of the representatives of the committee for the preparation of the preliminary labors of the commission, I deem it my duty to state that the conference has done everything in their power to come to an agreement, its highest aim being the interest of the public health and that of international commerce. Without doubt, an agreement upon all points would have been very desirable, but the force of circumstances in the discussion of such vital and important points, as could be expected, made this somewhat difficult; but still, for the present, we must be contented with the results, as they are the first step to a general agreement in the future.

"As regards the scientific part of your programme, the conference came to the same conclusion as that arrived at, at Constantinople, a few years since, without being able to clear up the dark points in the history of cholera, since that time no important discoveries having been made. Two questions arose as to the prophylaxis and the protection against infected and cholera-suspected provinces, at the different seaports where disease might be propagated to a healthy community by a steamer or vessel coming from such an infected port.

"The two systems, of which each has its advantages and disadvantages, were discussed and maintained by each party with equal tenacity, the one

claiming the utility and necessity of the strictest quarantine, the other being in favor of a thorough inspection of each incoming vessel, the establishment of hospitals for the reception of persons affected with zymotic diseases, the separation of the healthy from the sick, but no detention of the former, no quarantine; and, finally, both these methods were proposed to be tried. Simple inspection and revision, and again, on the other hand, some favored the existing quarantine regulations against cholera. The conference, however, voted almost unanimously against quarantine regulations on land; that is, people or merchandize being transported by land should not be interrupted before arriving at their destination on account of coming from a place where zymotic diseases might occur at the time of the departure of persons or things. In regard to river transportation, the same measures were adopted as in case of transportation on the high seas. Strict inspection, revision, separation of the healthy from the sick, the proper use of disinfectants, &c. That part of the programme regarding the establishment of an international commission against epidemic diseases has been adopted, the financial question to be left in the hands of the diplomacy."

Finally, he begged them to sign the *Protokoll*, in order to present it to the different governments which they represent, for the purpose of establishing a general system, one law governing all the nations who participated at the conference; not that each country, as is the case now, should have quarantine regulations of their own.

On the whole, it seems to me that the Congress have not advanced our knowledge regarding contagious diseases, but admitted that very little is known respecting their origin, their prevention, their cure. They expressed their doubts, even, as to great benefits that were thought to be derived from the use of disinfectants, but as nothing better was known, they still recommended their use. The establishment of a permanent committee to study thoroughly these vital questions seems to be the wisest and most important resolution adopted.

The detention of vessels coming from an infected port, or having a case or two of contagious disease on board, for weeks after their arrival with valuable cargoes and hundreds of passengers, costs often thousands of dollars and considerably disturbs the commercial intercourse of two distant cities or countries, and is worth while being fully discussed by competent authorities. On the other hand, if through too lenient measures the lives of the citizens of a healthy city should be jeopardized, no quarantine measures would be too strict, too severe to prevent such a calamity. In my opinion, no country is more interested in clearing up these important, yet unanswered, questions than the United States. Holding, as we do, intercourse with all parts of the world, and having the greatest commercial interchange with all the nations on the face of the globe, we should take an active part in the deliberations of such scientific conferences, and I can only again regret that the United States have sent no one to the Congress that has just closed its session.

Very respectfully yours,

RUDOLF TAUSZKY.

JOURDAIN REDIVIVUS.

BOSTON, Sept. 3, 1874.

MESSRS. EDITORS,—Among the petitions presented to the Board of Aldermen at their last meeting was one from William H. Gertz, asking for a license for a "Museum of Natural History and Science" at 542 Washington Street.

Going by Jourdain's "Gallery of Anatomy," this morning, I noticed that the name of "Jourdain" had been carefully painted out, and I further noticed that the number was *five hundred and forty-two!*

Putting two and two together, it looks as if "Dr." Jourdain was tired of waiting for *his* license and had adopted this subterfuge.

As the JOURNAL was so forward last winter in abating the Jourdain nuisance, I thought you might like to have your attention called to this new move.

W. C., JR.

Medical Miscellany.

DR. BUDD estimates that an average of 15,000 persons die, and 140,000 are attacked, annually in England by enteric fever.

DR. WESTPHAL, who for some time held the office of Director of the Department for Diseases of the Mind and Nervous System in the Charité Hospital, has been appointed ordinary Professor of Psychological Medicine in the University of Berlin.

AMBULANCES.—Philadelphia has an ambulance station in telegraphic communication with all the police stations, so that a summons for medical aid and an ambulance may be sent from any section. A surgeon will be promptly despatched, with all needful appliances, to the scene of accident.

THE NEW MEDICAL DIRECTORY OF MASSACHUSETTS is making satisfactory progress, and will be published early in October. We have been favored with an examination of the proof-sheets, and can bear witness to the thoroughness with which the work has been done. Physicians will find the book as indispensable as a dictionary.

"THE PARIS MEDICAL RECORD" is the title of a new venture in medical journalism. The Editor states his conviction that, "notwithstanding the great number of medical periodicals in existence, the thirst for knowledge is so intense that the supply is still far short of the demand." Hence this very promising bi-monthly review of the progress of medicine. The journal is published in Paris in the English language, and the initial number is made up mainly of translations of lectures and other contributions to medical science by the Paris professors.

TREATMENT OF ZONA BY COLLODION AND MORPHIA.—Dr. Bourdon, Hôpital la Charité, after having tried a great many local means for treating the above disease, and checking the intense pain, has definitively adopted the following plan:—Without opening the vesicles, he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains. The mixture must be put on pretty thickly. The pain ceases from the second day, and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness.—*Canada Lancet*.

IT is contemplated to erect a memorial statue in honor of Ephraim McDowell, M.D., of Kentucky, the *founder of ovariectomy*. The appeal for aid to the project is first made to the women of the world who have been rescued by ovariectomy; next to the members of the medical profession, whose resources have been so greatly increased; lastly, to all who appreciate this advance in surgery, and its originator as worthy of the gratitude of the human race. All contributions to the memorial fund should be sent by money-order or registered letter, addressed to Dr. James M. Keller, No. 58 Green Street, Louisville, Ky., who has been appointed secretary and treasurer by the committee.

SWALLOWING A TOOL-CHEST.—It is reported that in the different prisons of Paris there are five or six deaths every year from the effects of swallowing what is known as an "escape-box." This remarkable box is made for the special accommodation of prisoners. It is of polished steel, about three inches long, and contains turnscraws, hammers, silk thread, and other implements necessary for escape. The box appears to be easily swallowed, but sometimes fails to reappear as intended, and the death of the victim is the result. But, when it does pass the bowels, the lucky prisoner is prepared to cut the thickest iron bars and set himself at liberty.—*New York Medical Journal*.

PETRIFICATION VERSUS CREMATION.—Dr. Steinbeis, of Württemberg, proposes to dispose of the dead by placing the body in a trough of cement, and then filling the space with liquid cement, which will harden and convert the whole into a solid mass of stone. The blocks thus obtained may be piled up, buried, or inscribed and set up to do duty as both tombs and tomb-stones. This method, if generally adopted, possesses some advantages for posterity, as future generations would probably use the obsolete blocks for building material.—*New York Medical Journal.*

ATROPIA IN PHTHISICAL SWEATING.—Dr. James W. Williamson reports, in the *Lancet* of July 25th, the results of Dr. A. H. Hassall's experience with atropia in the night-sweating of phthisis. In sixteen cases in which the remedy was tried, he found the perspiration either wholly arrested or materially diminished; but in only one-fourth of the number was the effect permanent. The dose given was one-eightieth of a grain, in the form of pill, with extract of gentian. The quantity was increased, as it seemed necessary, to one-sixtieth or one-fiftieth of a grain. The watery solution of atropia was found liable to spoil, and inferior in its effects to the solid dose as administered. In some patients, the sensibility to the atropia rendered its use inadmissible; but in a large class of cases it is believed that it will answer a good purpose after other remedies have failed. The cases above mentioned were treated in the Royal National Hospital for Consumption, Ventnor.—*New York Medical Journal.*

UNPLEASANTLY SUGGESTIVE.—From an address by the President of the Massachusetts Society for the Prevention of Cruelty to Animals, we quote the following:—

"It is estimated that about six per cent. of cattle, and about nine per cent. of sheep and swine, nearly 600,000 in all, annually die on the passage to market from the west, and a large portion of these are sold in our markets, either as meat, or rendered into cooking lard; while the cattle that get through alive, for the want of food and water, and by reason of the cruelty inflicted upon them, after losing on the average, in transportation, nearly a hundred pounds each in weight, from the most juicy and nutritious parts of the meat, come out of the cars full of fever, and with many bruises, sores and ulcers; and these, together with smaller animals, to which the loss and suffering is, in proportion, equally great, are all sold in our markets for food."

DIED,—At Bethlehem, N. H., Sept. 4th, Jeffries Wyman, M.D., of Cambridge, aged 60.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities for the week ending August 29, 1874.*

Boston, 167; Worcester, 34; Lowell, 42; Milford, 3; Chelsea, 14; Cambridge, 35; Salem, 16; Lawrence, 21; Springfield, 23; Lynn, 18; Gloucester, 7; Fitchburg, 3; Newburyport, 2; Somerville, 12; Fall River, 36; Holyoke, 7. Total, 440.

Prevalent Diseases.—Cholera infantum, 122; consumption, 50; diarrhoea and dysentery, 28; typhoid fever, 13.

The mortality from prevalent diseases does not show any material change as compared with last week.

F. W. DRAPER, M.D.
Secretary, pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 5, 1874. Males, 90; females, 93. Accident, 4; apoplexy, 3; inflammation of the bowels, 4; disease of the bladder, 1; bronchitis, 1; congestion of the brain, 4; disease of the brain, 3; cancer, 3; cholera infantum, 44; cholera morbus, 2; consumption, 26; convulsions, 1; debility, 2; diarrhoea, 9; dropsy of the brain, 2; drowned, 2; dysentery, 4; diphtheria, 1; scarlet fever, 1; "congestive" fever, 1; typhoid fever, 8; disease of the heart, 6; hæmorrhage, 1; homicide, 1; intemperance, 1; intussusception, 1; jaundice, 1; lockjaw, 1; disease of the kidneys, 1; congestion of the lungs, 3; inflammation of the lungs, 10; marasmus, 16; old age, 4; paralysis, 2; pyæmia, 1; starvation, 1; suicide, 1; teething, 3; whooping cough, 3.

Under 5 years of age, 107; between 5 and 20 years, 9; between 20 and 40 years, 32; between 40 and 60 years, 17; over 60 years, 18. Born in the United States, 147; Ireland, 30; other places, 6.

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THURSDAY, SEPTEMBER 17, 1874.

[No. 12.]

Original Communications.

SOME EXPERIMENTS UPON THE CURVED LINE OF
DULNESS WITH PLEURITIC EFFUSION.

By G. M. GARLAND, M.D.

It occurred to me that, if a fluid capable of setting could be injected into the pleural cavity of an animal, it would subsequently admit of exposure by dissection without disturbance of the mutual relation of lung and effusion, and thereby aid in interpreting the mysterious writing on the wall.

With the kind assistance of Prof. H. P. Bowditch, I therefore began a series of experiments upon dogs, in his laboratory. The results obtained are not as complete and satisfactory as might be desired, but my apology is that my time is too limited by other engagements for more complete investigation of the subject at present.

We employed, in our experiments, several forms of glue and gelatine, with chromate of potash as a hardening agent. Mutton suet and plaster of Paris were also used. The plaster of Paris gave the most satisfaction, but required great expedition in preparing and injecting it, as it set so quickly. It was mixed with water to a thick fluid consistence, and was then poured into a glass flask. This flask was arranged like a common wash-bottle. The air within it was condensed by pressure from a rubber bulb, and this condensed air drove the fluid through a rubber tube connected with a canula in the dog's side.

One or two of the early experiments were aborted by the admission of air into the chest. The air allowed the lungs to collapse, and the injection assumed a hydrostatic level.

To avoid this casualty, we chose a region where the canula could be boldly plunged through the chest-walls with least danger to the contained viscera. During full inspiration, the lungs occupy all the thoracic space which is accessible to them. With expiration they contract, allowing the upper surface of the diaphragm to come in contact with the thoracic walls for some distance above its line of attachment.

The canula, previously filled with water retained by a stop-cock, was plunged into this space between the ninth and tenth or the tenth and eleventh ribs in the axillary line. By inserting the finger through a small opening in the abdominal wall, the canula could be felt sliding along above the diaphragm. Its blunt end prevented accident, while, by its conical shape, it plugged the opening it made in passing through the muscles as it entered.

Actual measurement of the amount injected each time was not made, inasmuch as this point could be of value only by comparison with a

thorax of fixed size. No two of the dogs were of the same size. The injections, therefore, are merely designated small, medium or large. Both dead and etherized living dogs were injected, with no difference in the results.

After allowing time for the setting, the skin of the animal was removed and the chest carefully percussed and outlined. (See Figures 1 and 2.) The thorax was then opened, and the external line of dullness compared with the internal condition of affairs.

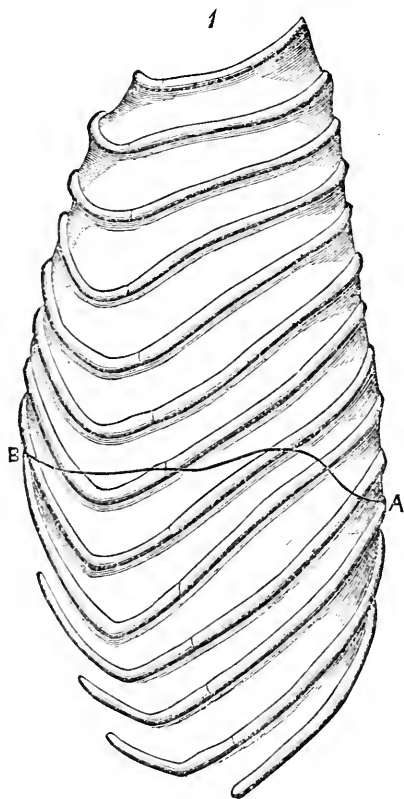


FIG. 1.

A B represents the simplest form of a curve. The effusion was small.

A is opposite the eleventh rib on the back.

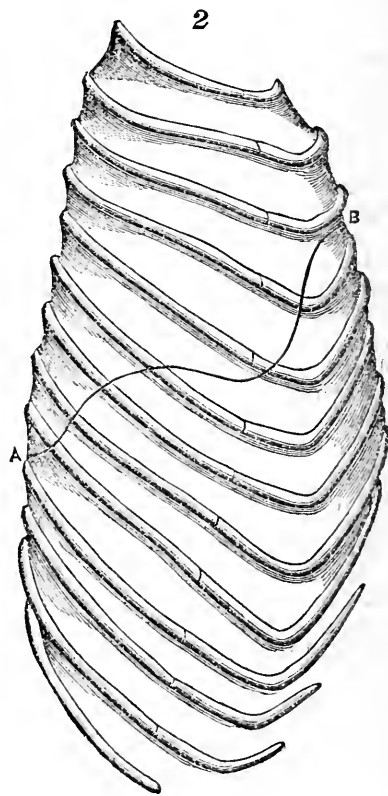


FIG. 2.

A B represents a curve of a somewhat larger effusion. The sudden rise of the curve, as it approached the sternum, was found to be partially due to a displacement of the heart by an injection in the opposite chest.

The first point which our experiments demonstrated with regard to the mutual relation of lungs and effusions is that the *resisting lung*, rather than the encroaching fluid, is the chief moulding agent and factor in determining the curve of dullness. In every instance, the lungs were practically unaltered in their gross anatomical shape, though of necessity compressed and occupying less room.

The edges of the lungs, even, were not rolled in, as the moulds show for themselves. With forcible inflation of the lungs, these bor-

ders act like wedges in cleaving the mould asunder. With the largest effusions, the lungs were approximated to the foetal condition of atelectasis, but with form intact.

The first effect of a small effusion was to swing the lungs upon the large bronchi as hinges, *upward* and *outward* against the walls of the chest. Little or no fluid separated the lungs from the chest. It was only in cases of very large effusions, or of concurrent pneumo-thorax, that such separation occurred.

Now the normal shape of the lower border of the lungs is a curve, with the lowest point behind, and rising as it advances forward. Hence, with a small effusion, the fluid being moulded to the lower surface and border of the lungs, as I have stated, the curve is simple and easily understood. [See figure.] Internally, between lung and heart, there seemed to be the point of least resistance to the fluid, which here found an escape by shooting up some distance. The actual pressure of the lung upon the surface of the fluid was sufficient to sustain a considerable column of the effusion in this region.

Larger effusions, I have said, gradually crept in between chest-wall and lung. The curve must, therefore, be necessarily modified according to the depth of the intervening fluid, i. e., according to the relative ability of the different portions of the lung to resist lateral pressure and retain sufficient air to be resonant. This requires further investigation. Wintrich says the curve is always highest *behind*, and thence declines to the median line in front. Dr. Ellis finds, however, that the line of dulness is *lowest behind*, rises on the sides, and sinks again in front. We found, with small and medium effusions in dogs, that the curve and lung were *lowest behind*. Thence the curve rose till it reached the side, whence it proceeded, nearly horizontally, to the sternum.

The borders of the lung overlap the effusion somewhat, i. e., wedge themselves in between chest and fluid.

We made but one injection in the human body, and that in an infant a few days old. Unfortunately, we neglected to percuss the chest and note the curve, but the experiment was so far successful as to convince us that the principle of the lung moulding the effusion was the same in the child as in the dogs.

I have insisted upon the lungs moulding the fluid, because it seems to me to be the most important factor. I do not deny that the lungs may, in turn, be moulded by the effusion to some extent. It may be true with human lungs. It did not appear prominently with the dogs.

I content myself with stating what we saw, without attempting any theory why, how, or with what force, the lungs oppose the effusion. I hope, at some future time, to have an opportunity to renew these experiments upon the human cadaver, and note the modifications of different positions of the body upon the relation of the parts. Such observations might throw more light upon the conditions already seen and described.

Incidentally to the injection of living dogs, we observed the following facts, which are of some interest.

The dog's breathing, which had been more or less diaphragmatic, became purely thoracic immediately on the injection of the fluid. On opening the abdomen after the injection, the diaphragm was found bagged down like a lobster net. With each act of inspiration, however, it could be felt to rise, being drawn upward by the separation of its points of

attachment. The fluid could also be felt shifting its form and level with every act of respiration, thereby accommodating itself to each change in its containing vessel. That this movement of the diaphragm was purely a passive one, was demonstrated by grasping the muscle tightly between two fingers. It was perfectly limp and passive, devoid of muscular action.

It was suggested that, in such an abnormal position, if the diaphragm should by any means contract, it would, of necessity, act as an expiratory muscle rather than an inspiratory one, as it normally does. To demonstrate this point, we dissected out the phrenic nerve in the neck, and irritated it by electricity just above its entrance into the chest.

Before injection, such irritation always produced a violent act of inspiration, followed either by a tonic spasm of the chest-muscles or by rapid irregular breathing during the continuance of the irritation.

The same irritation of the nerve, after the injection, produced a violent act of expiration. It is evident that, with the muscle bagging down, contraction of its fibres must draw the dependent portion upward, and thus produce the phenomenon described.

I conclude that, with effusions in the chest, the diaphragm must play a passive or contradictory part.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By GILMAN KIMBALL, M.D., of Lowell.

(Continued from page 157.)

CASE VIII.—Mrs. C., of Haverhill, Mass., 47 years of age, married; three children. Always healthy till within the past year. Eight months since, first discovered a hard lump in right side just above the ilium, attended with some discomfort, but not enough to interfere with the usual duties of her household.

Early in the spring of 1870, four months from its first appearance, the tumor began to increase in size.

I was called to see her in June. I found abdomen slightly prominent, with a fluctuating tumor occupying the right hypochondrium and extending toward the opposite side a little beyond the median line.

Several weeks elapsed and I saw the patient again. Size of abdomen greatly increased and very sensitive; fluctuation throughout; a quick feverish pulse; loss of appetite, with intolerance of food and frequent vomiting, indicated peritonitis, in a greater or less degree. The case evidently was going on badly, and it now remained to decide whether, in the present aspect of the case, surgical interference of any kind could afford any essential relief. Obviously the only hope in this direction was in the early removal of the disease. A proposition to this effect, being submitted to the patient and her friends, was accepted without hesitation.

As a preliminary measure, tapping was resorted to. This was for the purpose of relieving present suffering; also with the hope of putting the patient in a better condition for the final operation at a future day. A puncture was made just below the umbilicus, where the fluc-

tuation was most marked. The withdrawal of the trocar was followed by no fluid. A second puncture between umbilicus and sternum was equally unsuccessful, no fluid escaping through the canula, excepting a small amount of serum. Soon after the withdrawal of the trocar, however, there escaped through the canula a small quantity of amber colored, jelly-like substance similar to what is frequently found in ovarian cysts. This circumstance gave a new aspect to the case. It now became quite clear that no cyst had been punctuated, but that the gelatinous matter escaping through the last made puncture was only a sample of what was occupying the abdominal cavity in a large amount.

No marked ill effect followed this procedure, yet it was certain no advantage had been gained by it; on the contrary, the patient continued, as before, to grow daily worse. An early removal of the disease was now decided upon, and the operation was performed accordingly, the 20th June, three days after the tapping. Present and assisting, Drs. Drinkwater, Towle and Crowell.

Immediately on making an incision through the parietes, it was seen that the peritoneal cavity was filled with a large amount of thick gelatinous substance, similar in color and consistence to calf's foot jelly. It was lodged in every direction throughout the abdomen, adhering to the viscera so as to be detached with the greatest difficulty; indeed, at some points, its detachment was quite impossible. The cyst from which this substance had escaped, evidently constituted the main bulk of the tumor. There were, however, several smaller cysts with walls entire, and containing, each of them, a pint or more of the same jelly-like substance. As these were drawn out, they were found to have originated from the right ovary. The pedicle was slender, and could be safely secured by a single ligature. It was too short to be brought outside, and having been severed as closely as possible to the tumor, was allowed to drop back.

In proceeding to clear the abdomen of the foreign material which thus far had seriously embarrassed the operation, there came to view still another cyst, containing a quart or more of substance precisely similar to that already described. It proved to be a second ovarian tumor, and connected with the left ovary. It was dislodged entire, and its pedicle secured by a single ligature. Both ligatures were now twisted together, and passed out of the pelvis, through the cul-de-sac of Douglass. The plan of conducting through a canula was repeated in this instance, the complications being such as to render it almost certain that pelvic accumulations would occur, and no other means could be devised so likely to secure their direct and immediate discharge.

Nothing remained to complete the operation but to close the wound with a proper number of deep and superficial sutures, and apply outer dressings in the usual way.

July 1st, morning after operation.—Patient had a very comfortable night; slept several hours, and suffered only slight pain in the abdomen. Pulse 106. Skin moist; urine in good quantity, drawn away by catheter; countenance good; vomiting occasionally, the same as before operation.

July 2d.—Very much as yesterday; no pain; some distention of abdomen; tendency to vomit. Pulse 110. Countenance still cheerful;

no discharge through canula. Ordered beef-tea injections, to be repeated every two hours.

July 3d.—Symptoms generally very much the same as yesterday. Some discharge *per vaginam*, partly outside, and partly through the canula.

July 4th.—Continues to suffer much from frequent vomiting; otherwise no very marked change since yesterday. Free discharge through canula; continue beef-tea injections.

July 6th.—Very little change for the last two days, excepting a gradual loss of strength. Vomiting still continues; slight distention; discharge from vagina abundant, and very fetid. Pulse 112.

The history of this case, subsequently to last date, was obtained from the attending physician and an intelligent nurse. In most particulars it was the same as has already been described, the patient growing more and more exhausted from day to day till her death, which took place the twelfth day after the operation. During two or three days before death, a large quantity of fetid matter escaped through several openings in the line of the incision. Meanwhile, the discharge *per vaginam* was in no degree diminished. Antiseptics thrown freely into the peritoneal cavity, through the incision as well as through the canula, seemed to produce no favorable impression. In quality and quantity the poisonous accumulations continued unabated to the end. The obvious cause of death in this case was septicæmia.

CASE IX.—Mrs. M., of Jefferson, Me., 47 years old, naturally healthy, nine years ago first noticed a hard lump, the size of a goose-egg, in her left hypochondrium. Its growth was very slow, and gave little inconvenience till within the past year. Last summer had severe peritonitis; immediately after, tumor increased rapidly. Came to Boston to consult me the last of September, 1871. Abdomen much distended. Multilocular ovarian tumor, very large. System suffers seriously, as shown by emaciation, embarrassed breathing, œdema of lower limbs, loss of appetite, rejection of food, &c.

An operation is earnestly desired, and the case, though of an unpromising character, is regarded as one that justifies it.

Oct. 11th, I visited the patient at her home in Maine. Due preparations having been attended to, ovariotomy was performed the same day; Dr. Horne, of Jefferson, assisting. Incision through the parietes, just below the umbilicus, was followed by a gush of six pints of ascitic fluid; a large cyst presented itself, was tapped, and sixteen quarts of dark-brown viscid fluid drawn away. The incision was further enlarged, and the entire tumor dislodged, several cysts being first evacuated as they came to view. No adhesions. No cystic matter passed into the peritoneal cavity. Pedicle broad and thick, secured by clamp; wound closed by deep clamp sutures; lower angle of incision left open for escape of secondary accumulations. As additional means to the same end, the floor of the pelvis was punctured with trocar and canula; trocar withdrawn and canula allowed to remain. Dressings as usual: hypodermic injection of one-fourth of a grain of morphia, immediately after placing the patient in bed.

Night following operation, very comfortable; no pain or other suffering; bloody serum passing freely through canula.

2d day.—Symptoms still favorable; no signs of approaching peritonitis.

3d day.—No special change since yesterday.

4th day.—Pain in region of bladder, and urgent desire to micturate. Catheter passed several times, but with no relief, the instrument seeming to be clogged with mucus. After several hours of suffering, the bladder was evacuated by voluntary effort; urine dark-colored and offensive; relief immediate. After this, symptoms continued favorable (excepting considerable prostration) for the next twelve days; meantime, beef-tea and brandy were given in liberal quantities, both by stomach and rectum.

Flowing through the canula had ceased on the fourth day; two days after, a free discharge of offensive matter was forced through an opening at the lower angle of incision. Through this same opening, antiseptics (chloride of soda, largely diluted with water) were afterwards injected every few hours. The case continued to progress favorably till the end of the third week, when a profuse and most exhausting diarrhœa supervened, attended with nausea and loathing of nourishment of every form. The diarrhœa was controlled on the fourth day; directly after, the condition of the patient rapidly changed for the better. The stomach, no longer satisfied with liquid diet, demanded substantial nourishment; beside milk and eggs, beef and mutton were taken freely and with a relish. Improvement now continued with no further interruption, so that by the end of the eighth week the patient considered herself substantially cured.

The interest in this case relates chiefly to two practical points: first, the plan of drainage through the cul-de-sac of Douglass; second, the early, persistent and liberal use of nourishment and stimulants. In regard to the first point, viz., the plan of drainage, the arrangement in this instance was less satisfactory than it had proved to be in previous cases. The flow through the canula was quite free for the first three days, but on the fourth, the instrument having been accidentally displaced, the escape of matter in that direction suddenly and entirely ceased. To this event may be attributed the further accumulation of poisonous matter in the pelvic cavity, and its subsequent discharge through the incision; also, those marked manifestations of septicæmia that followed a few days after. The degree of mischief that might have occurred had the canula arrangement never been resorted to at all, it is, of course, impossible to calculate. It is, however, no more than reasonable to suppose that the early relief secured by this means was a circumstance of no inconsiderable importance in its bearing upon the final result of the case.

The second practical point suggested by this case has reference to the use of nourishment and stimulants, a practice, according to my experience, not only admissible, to some extent, at least, in every case of ovariectomy, but in most cases absolutely essential. The principle is well illustrated in the present instance, where, in addition to a low degree of vitality, consequent upon the development of an exhausting disease, and a still further depression incident to a grave operation, we had also to contend at one time with the all but overwhelming effects of septicæmia. The patient was saved, no doubt, by the persistent and liberal use of substantial nutriment and stimulants.

This form of practice I regard as by no means limited to its therapeutic effect: it has a prophylactic value as well. Inflammation following ovariectomy, with its usual accompanying peritoneal effusion,

is rarely, if ever, of an acute character. If it occurs at all, it is of a subacute form, associated with, if not dependent upon, exhausted vitality. To prevent its invasion, therefore, as well as to control its effects, the course of treatment, as above illustrated, is the only one that can be safely relied on; and certainly, if symptoms of septicæmia occur, its neglect would only deprive the patient of the last and only chance of escape from death.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. EDES, M.D.

ALCOHOL.

IN the *Practitioner* of July, 1874, Dr. Anstie gives the results of some new experiments upon the behavior of alcohol in the body. After recapitulating the results of previous experiments, which have been referred to in these reports and elsewhere, showing that only a minute proportion of alcohol is eliminated by the skin, breath and urine, he details several experiments upon dogs confined in a box to represent Pettenkofer's chamber, so arranged that all the excreta could be examined. In the first case the total elimination by a dog of ten pounds weight, after the ingestion of 47.73 grains of absolute alcohol was only 0.192 of a grain. To another dog, weighing nearly ten pounds, an ounce of brandy (= 190.92 grains absolute alcohol) was given daily for ten days. The rate of elimination was 1.13 grains per diem. The dog was then killed, and the total amount of alcohol present in the entire body and its contents (not in blood alone) estimated. It was 23.66 grains. He had had half an ounce of brandy two hours before death.

It appears from this absolutely proved, that as the dog received 2,104 grains of absolute alcohol, eliminated 11.3 during life, and contained only 23.66 grains after death, over 2,000 grains must have been destroyed in the body.

Dr. Parkes (*Proceedings of the Royal Society*, 1874, No. 150; *Centralblatt*, July 4, 1874) has repeated his experiments upon the influence of brandy upon the bodily temperature, the pulse and the respirations of healthy men.

The former experiments did not in all points agree with those of other observers. In the present series, Dr. Parkes found that cognac, in moderate dose (= 60 ccm. = 3iv. absolute alcohol), usually lowered the temperature in the rectum, although not always. It never increased it. The pulse, during rest, became slightly accelerated, likewise fuller and softer. The vessels of the head showed increased fulness. The effect on the respiration was but slight. Dr. Parkes attributes the difference in the effect upon the pulse in the two series of experiments to the fact that in the former, but not in the latter, the alcoholic liquor was taken upon a full stomach.

Lewin (*Centralblatt*, Aug. 8, 1874, p. 593) gives the results of his experiments on various animals, which confirm those of most other observers, namely, a slight rise of pulse soon after a dose of alcohol,

then a slight fall; a decided but not very great fall of temperature, except when narcotism was induced.

CHLORAL.

M. Oré (*Journal de Thérapeutique*, No. 5, p. 185) having previously experimented upon animals, has twice injected chloral into the veins in man, and finds it to be an exceedingly powerful anæsthetic.

In one of these cases a man was attacked with tetanus, in consequence of a wound to the middle finger. M. Oré injected, at two doses, with an interval of three or four minutes, a solution of nine grammes (= 135 grains) of hydrate of chloral in ten grammes ($2\frac{1}{2}$ drachms) of water, into the radial veins.

Immediately after the second injection, the patient fell into a calm sleep, the pulse fell, and the jaws could be separated to a greater distance. Nothing, not even the evulsion of the finger-nail, could wake the patient or provoke any spasm.

Two more injections were practised, and the patient recovered (*Op. cit.*, No. 6). No phlebitis was produced, but a small abscess due to the penetration of the chloral into the cellular tissue.

MM. Deneffe and Van Wetter (*Journal de Thérapeutique*, No. 13, p. 513) injected eight grammes (125 grains) of chloral into the radial vein of a patient who was then operated upon for cancer of the rectum. The operation was done without pain or accident, but the sleep lasted nearly twelve hours.

The procedure of M. Oré seemed to meet with general disapproval. M. Gosselin cites among its disadvantages, adhesive or suppurative phlebitis, coagulation of the blood, difficulty in producing anæsthesia, and alarming duration of the sleep. What, he asks, are its advantages?

M. Vulpian (*Journal de Thérapeutique*, No. 12, p. 474) states that he has three times observed in dogs, into whose veins he had injected chloral to produce anæsthesia, a quite abundant hæmaturia. He also thinks, from observations in his laboratory, that the subcutaneous method is not free from danger of abscesses and gangrene.

These accidents have been observed by M. Giraldes in children, so that he has abandoned this (subcutaneous) method of administration.

M. Cruveilhier (*Journal de Thérapeutique*, No. 9, p. 349) reports the case of a patient with traumatic tetanus, who received intravenous injections of chloral after the manner of M. Oré. The tetanus was not modified, and the patient died during sleep.

At the autopsy, the left fore-arm, which had received one injection, was the seat of an abscess of some size. The cellular tissue had sloughed, and the external coat of the ulnar vein was black and sloughy. All the other veins which had been punctured were a little thickened, their internal surface had lost its polish, and they contained clots of some size.

M. Leon Labbé reports a similar case, where the tetanus was not cured by the solution of Oré, but there was no lesion of the veins following the injection.

Dr. Anstie reports (*Practitioner*, Feb., 1874) the case of a medical man who used to take half an ounce of chloral in twenty-four hours, and on one occasion more than an ounce. On this day he did not sleep at all in the day, but dined at 7.30, and had no sleep that night.

He suffered from neuralgic pains of great severity, which Dr. Anstie seems to have noticed in other cases, and compares to those observed after prolonged abuse of alcohol or chloroform. After this person had been taking it for some time, he noticed that the use of a very small quantity of wine would flush the face, suffuse his eyes, and bring on a severe headache (vasomotor paralysis?).

As the question of the decomposition of chloral appears to be an unsettled one, it is interesting to notice the assertion of Byasson (*Journal de l'Anatomie et de la Physiologie*, Jan., 1874, p. 87) that he has proved that chloral is decomposed into chloroform and eliminated by the lungs. He says that alkaline bicarbonates, in presence of albumen and serum of blood at the temperature of 40° cent., decompose hydrate of chloral.

He thinks, however, that chloral possesses an action distinct from that of chloroform. He says three grammes (45 grains) of chloral produces almost certainly sleep of several hours, while two grains of chloroform, being nearly an equivalent (3 grammes chloral=2.17 grains chloroform), given in pearls produces merely an antispasmodic effect, and neither sleep nor marked diminution of sensibility. (This quantity of chloroform, if *inhaled* without loss, is not destitute of soporific effect. The *length* of sleep after moderate doses of either depends largely upon the occurrence or not of any disturbance.)

A case (*Journal de Thérapeutique*, No. 9, p. 347) where rectal injections of chloral were successfully used in a case of threatened abortion, was used as an argument on each side of this question by the respective partisans.

M. P. Bert (*Journal de Thérapeutique*, No. 7, p. 274) reports some experiments which favor strongly the transformation theory. They were made upon the flowers of mahonia and berberis, which possess sensitive stamens. Nitrous oxide seemed to have no anæsthetic effect, but the flowers after twenty-four hours appeared faded and wilted.

The vapors of chloral hydrate and of chloroform were diffused under two bell-glasses which contained each a flower-bearing branch of mahonia. With the chloral, there was no action at the end of some hours; with the chloroform, anæsthesia was produced at the end of some minutes. Branches were also placed in water, containing, respectively, chloral and chloroform. That in the chloral solution died in some hours, without anæsthesia having been previously produced. On the branch placed in chloroform water, the sleep of the stamens was manifest in a few minutes.

If, however, to the chloral solution a small quantity of carbonate of soda was added, the movement of the stamens was suspended as in the glass where chloroform was mixed with the water.

CROTON-CHLORAL.

Experience with croton-chloral continues to vary greatly, especially in regard to the dose. Dr. Yeo (*British Medical Journal*, March 7, 1874) does not consider it safe in any case to go beyond fifteen grains, and this amount should be reached by doses of two to five grains every hour or half hour.

Dr. Durrant saw a case of severe and persistent neuralgia relieved in two days and cured in three, by one grain three times a day. In another case it utterly failed.

Dr. Lewis used five grains twice a day in neuralgic dysmenorrhœa with remarkable benefit.

Dr. H. A. Allbutt used half-drachm doses every night for three weeks in insomnia. There were only three nights of calm sleep in this time. He naturally concludes that it is not of much use in sleeplessness, in which opinion Dr. Gray (*British Medical Journal*, March 28, 1874) agrees with him, while Dr. Yeo says as a hypnotic it has no advantage over chloral. Occasionally the effect of chloral is increased by the addition of five to fifteen grains of croton-chloral.

Coca.

This plant, which is used in Peru and Bolivia by the Indians, who chew it habitually, and which has properties somewhat like those of tea and coffee, has been imported into Europe, and somewhat into this country. Like many other drugs, it has been extravagantly praised, but it appears as if it might hold a useful place as a nervous stimulant and tonic. It is said to have been successfully used in dyspepsia, flatulency, colic, convulsions, debility following severe acute affections, anæmia, scurvy, &c. A moderate dose renders the performance of muscular exertion easier. The leaves chewed, or in weak infusion, stimulate the gastric nerves, greatly facilitate digestion, and are useful in relieving the sense of fatigue from excessive mental or physical exercise.

In a case of diabetes, where the weight was decreasing when opium alone was given, a temporary gain took place under opium and coca. There was no influence on the quantity or specific gravity of the urine. In phthisis it did not do any good. (*British Medical Journal*, March 7 and March 28, 1874.) Most, though not all, experimenters have determined a diminution of urea eliminated.

(To be concluded.)

THE Paris correspondent of the *London Medical Record* of August 12, 1874, criticises very severely the hygienic condition of the Parisian hospitals. He alleges that to the want of cleanliness in the surroundings of the patients, to the filthy dressings which are applied to their wounds, to the use of polluted instruments, sponges and brushes, is due in a great measure the fearful mortality after surgical operations. He states that M. Gosselin has made a great discovery that ought not to pass unnoticed. "M. Gosselin has arrived at the conclusion that the cause of the excessive mortality in the French hospitals is, that *there is too much cleanliness* in the wards. This, you see, is a truly French thesis, and M. Gosselin defends it with much suitable fire and ingenuity. 'You are always scrubbing the floors,' he says to the sisters of the *salles*, 'sweeping down the walls, brushing the dust off the curtains, shaking the bed-clothes. Now all persons are agreed that this dust which you are incessantly removing is loaded with zymotic germs. *Let it lie*, therefore. So long as it reposes in peace it is at least harmless; when you fill the atmosphere with it, it flies hither and thither, settles upon wounds, touches upon the mucous membranes, and enters into the systems of the patients by the mouth, the nostrils, the air-tubes and the digestive passages.' This is charming, and might be most amusing as a satire on the dirty habits of our French hospital guardians, if it were not intended seriously, and if it did not come from a surgeon of serious character and great merit, such as M. Gosselin."

Bibliographical Notices.

Transactions of the Twenty-first Annual Meeting of the Medical Society of North Carolina. Raleigh, N. C. 1874.

THE reader of these Transactions will be forcibly impressed with certain characteristics which one might well wish belonged to all medical associations. In the first place, the Society shows a vigor worth emulating. Although the total fellowship numbers less than one hundred and fifty, including the honorary members, and although of this number only forty answered to their names at the opening session, the meeting lasted through three days, assembling in the morning and afternoon, and, on the second day, in the evening also. A great amount of business is placed on record as having been transacted, and it is evident that very little is left to committees, the Society preferring not to delegate its authority in such matters.

But the feature that will be most likely to attract the attention of those unfamiliar with such a condition of things in medical societies, is the noteworthy number and variety of papers communicated. In these three days, we have the reports of no less than twenty-eight contributions, not including the annual address. Of course, these papers vary greatly in degree of merit, and some of them are not published in the Transactions, but those that are printed are marked by a directness and earnestness that cancel any want of rhetorical elegance. These medical writers of North Carolina do not waste words in flourish and verbiage, but they report their cases with clearness and for the evident purpose of eliciting critical comment from their associates. We have space for a passing allusion to only two or three of the most suggestive of these papers.

Dr. Payne offered a vigorous plea for venesection in puerperal eclampsia. Whatever the underlying condition be, he would bleed with a boldness perfectly terrifying to those who believe "the lancet a relic of barbarism." The author reports a number of cases in which almost marvellous effects are claimed as the results of large venesection; in one case, seventy ounces were taken, *pleno rivo*, and the patient "recovered well." As concomitant treatment, Dr. Payne gives opium and morphia in full doses. Not only is bleeding practised thus to control convulsions, but when, during pregnancy, any premonitory signs of uremia present themselves, the lancet is also resorted to, and it is regarded "as a significant fact that not one of these cases, during a practice of nearly twenty years, has ever had a puerperal convulsion." Dr. Payne's method, though undoubtedly "heroic," would not, in all latitudes, be regarded as orthodox.

Dr. Wood, of Wilmington, reports a case of poisoning by Paris green, the patient having taken a teaspoonful of the pigment with suicidal intent. The symptoms resulting were not those typical of arsenical poisoning, but simulated those of cerebro-spinal meningitis: convulsions, opisthotonos, injected conjunctivæ, delirium, but no dryness of fauces, vomiting or diarrhœa. Recovery followed the exhibition of antidotes and the production of vomiting.

Dr. Lane, of Wilmington, reports five fatal cases of poisoning by the inhalation of carbonic oxide gas, the patients being seamen sleeping in an ill-ventilated fore-castle and exposed to the gases from a coal-stove.

The Annual Address deals with the reciprocal relations of the medical profession and the public. The discourse is a manly, vigorous plea for the rights of physicians and a protest against unjust measures of legislation which make the profession unpopular. Incidentally, the orator advocates the education of women as physicians; and we observe that the Society does not content itself with discoursing in this direction, but puts itself among the radical reformers in this matter, for among the honorary members we observe the name of Dr. Susan J. Dimmock, of Boston, Massachusetts. A prophet is not without *honor* save in his own country.

These Transactions show the North Carolina Medical Society to be zealous and vigorous if not always discriminating.

Some Practical Hints for the Treatment and the Prevention of the Diseases of Women. By WILLIAM GOODELL, M.D. Philadelphia. 1874.

THIS pamphlet of thirty-three pages is an excellent contribution to the practical side of the subject which it discusses. In the limits which the author has allowed himself, a great deal is accomplished. The style is condensed, almost dogmatic, throughout, but perhaps this is not a disadvantage. The profession is under obligations to the author for a concise, practical guide in gynecology, characterized by good sense and a conservatism born of ripe experience and intelligent observation.

For the local treatment of uterine disease, the following agents are recommended as caustics:—undiluted liquid carbolic acid or a saturated solution of the crystals, nitrate of silver in glycerine (a drachm to the ounce), the saturated tincture of iodine, fuming nitric acid and fused nitrate of silver. The caustic, carried on a probe armed at the end with cotton, is always passed, through a speculum, up to the fundus of the uterus, whenever the internal os permits, thus cauterizing the whole mucous tract. In this connection, the author remarks:—"I have about come to the conclusion that he is the most successful gynecologist who is the most plucky, and that no matter how severe or mild the treatment of uterine disorders, the percentage of accidents will be about the same, and that a very low one." The cauterization is to be repeated once a week. When granular erosion is associated with an everted os, the author recommends the use of the strong nitric acid, applied freely to the cervical canal, less freely to the interior of the uterus, and not repeated in less time than a month. In the intervals of the cauterization, vaginal injections, or suppositories of astringent agents, are to be used methodically.

"Since congestion is the essential basis of uterine disorders," local blood-letting is urged whenever the os uteri shows a crimson hue. The spear-pointed scarificator is preferred for this purpose.

In the choice of a pessary for retroversion or retroflexion, Dr. Goodell gives preference to Smith's modification of Hodge's hard rubber instrument, the anterior arms being approximated and their tip bent abruptly downward. The author's experience with intra-uterine stem pessaries has not been encouraging. The treatment of an anteфлекed and anteverted uterus by gradual dilatation being tedious and unsatisfactory, the writer urges the practice of rapid forcible dilatation. The use of tents is deprecated as a general rule, and the importance of avoiding their repeated introduction, one immediately after another, is insisted on.

In the treatment of the hæmorrhage from fibroid tumors, ergot is the main reliance, and, as a curative means, Hildebrandt's method of applying ergot subcutaneously is lauded. As a deodorant, antiseptic and local anæsthetic in cancer of the cervix, chloral hydrate is highly recommended, applied either as a lotion or in a vaginal suppository.

In the second part of his monograph, the author deals with the prophylaxis of uterine disorders. In the section on puerperal convalescence, he lays down some rather dogmatic innovations on traditional practice. From the first day after labor, the diet should be generous; the canonical purge on the third day should be dispensed with; premature exertion should not be allowed, but the recumbent posture may be intermitted early, and whenever the patient desires; the obstetric binder is useless, if not harmful, after forty-eight hours. In alluding to laceration of the perinæum in labor, the author says that many lacerations are due to the common mistake of making so firm pressure on the perinæum as to prevent its equable dilatation; the perinæum is not "supported" by this procedure. In the vast majority of cases, the perinæum does best when let alone, but in the exceptional cases demanding interference, the author renders aid as follows:—"Insert one or two fingers into the rectum and hook up and pull forward the sphincter and towards the pubes. The thumb of the same hand is to be placed upon the fetal head, scrupulously avoiding all contact with the fourchette."

The pamphlet closes with very timely criticisms of some of the fashionable and social follies of the present day—follies which entail as a punishment the

development of a long train of evils. The author speaks plainly and with emphasis of matters which recently have urged themselves on the public attention in connection with education, and cries aloud against conjugal sins in terms not to be misunderstood.

We cannot close our notice without an earnest hope that this little unpretentious pamphlet may have the wide attention which it deserves.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the Pathological Society of Philadelphia. Volume Fourth. Containing the Report of the Proceedings for the Years 1871-72-73. Edited by James Tyson, M.D., Hospital Lecturer on Pathology and Histology in the University of Pennsylvania, &c. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 250. (For sale by James Campbell.)

The Annual Report of the Kansas State Dental Association. Transactions at the Second Semi-annual Meeting, held at Ottawa, October 14, 1873, and at the Third Annual Meeting, held at Topeka, May 5, 1874. Lawrence, Kansas. 1874. Pp. 58.

Psychical or Physical. By C. H. Hughes, M.D., St. Louis. From the American Journal of Insanity, for July, 1874.

THE TREATMENT OF CHOLERA BY SUBCUTANEOUS INJECTIONS OF CHLORAL HYDRATE.—It is claimed that remarkable success has attended the treatment of cholera in India by subcutaneous injections of chloral hydrate. Mr. Higginson reports that he has treated nineteen cases by this method, and that death occurred in but two of these. The method is as follows:—

The injections were made into the arms and thighs, the canula of the syringe being plunged pretty deeply into the flesh. A solution was made of ten grains of chloral in one hundred drops of water. The greatest quantity used in any case was sixteen grains, given in eight injections. If the case was a bad one, four injections were made at once; then nothing was done for an hour, when the treatment was repeated if necessary. As a rule, sleep was induced within two hours. Nothing else was done, except shampooing the limbs and occasionally giving some cold boiled water.

The *British Medical Journal* remarks that "much more extensive observation is required before any definite conclusion can be arrived at as to the value or inutility of the treatment."

In a paper "On the Occasional Arrestive and Discutient Influence of Pregnancy over Pelvi-abdominal Tumors," Alexander Milne, M.D. (*Edinburgh Medical Journal*, August, 1874), combats the commonly accepted doctrine that pregnancy not only accelerates the growth of ovarian cysts, but excites inflammation, adhesions and suppuration, which may be of a fatal character. He cites three cases in which ovarian tumors of the size of an orange or the closed fist, were entirely discussed by pregnancy and parturition, or were very much reduced in size. The paper concludes as follows:—"It would not be right for me to omit saying a word or two on the possible risks. Pressure may promote inflammation and adhesion, and it may induce a bursting of the cyst, with evil, nay fatal, results; still, from the experience of these three cases of unilocular ovarian tumor, I am more than ever inclined to think that pregnancy need not be the bugbear here that it has been represented. If, then, any Fellows have a maiden patient, both betrothed and the possessor of a unilocular ovarian, let them not say nay when asked if she may marry; on the contrary, and especially if the growth is small and pretty clearly a monocystic ovarian, let them sanction the step as a probable journey towards a perfect cure."

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 17, 1874.

THE sudden death of Professor Jeffries Wyman, at Bethlehem, N. H., on September 4th, has cast a gloom that will not be readily dispelled over the medical and scientific community. Those in other walks of life who had not the happiness to know him, may be surprised at the wide-spread regret following the death of one who lived so secluded, writing and saying so little as Dr. Wyman; but it was his rare privilege to inspire at first sight confidence and regard, which, with greater intimacy, ripened into esteem and affection.

Jeffries Wyman was born at Chelmsford, Mass., in 1814. He graduated at Harvard in 1833, and took the medical degree of the same University in 1837. In 1843, having given up all thoughts of practice, he became Professor of Anatomy and Physiology in the Medical Department of Hampden Sidney College at Richmond, Va., which position he resigned, after four years, to accept the Hersey Professorship of Anatomy at Harvard, and that of Comparative Anatomy at the Lawrence Scientific School. Though actively engaged in teaching and in scientific research, he found time to make, almost wholly at his own expense, the collection of comparative anatomy now in Boylston Hall, at Cambridge, which, for its size, is perhaps the most perfect one in America. He was an active member of the Boston Society of Natural History, of which he was the President from 1856 to 1870. At the foundation of the Peabody Museum of American Archæology and Ethnology in 1867, Prof. Wyman was appointed Curator, and to the end of his life he devoted himself chiefly to this institution. His admirable annual reports give some idea of the amount of his labors, interrupted as they were by his failing health. Though continually engaged in original research, frequently discovering new facts and confirming or refuting old theories, he published but very little, and that in the most quiet way. Few of his friends have been free from occasional feelings of secret irritation that his light was, as they conceived, hidden under a bushel, and that his retiring modesty deprived him of some part of the reputation that was his due. But now, as we look back with a clearer sight on his career, we would not change the past if we could. The results of his labors are none the less valuable that they have been announced with no flourish of trumpets, and his example, in these days of premature self-assertion, is above price. "We have lost in Prof. Wyman," writes Dr. Holmes, "as nearly perfect a model of the student and teacher of science as we have ever known or are ever likely

to meet with." He is a benefactor who presents to the young such an example of patient, modest, unostentatious thought. There was with him no jumping at conclusions; when he was certain of a fact, he gave it for what it was worth, and for no more. On the rare occasions on which he indulged in theories, these were advanced merely as possibilities, which might some day develop into probabilities, not as new revelations to which long-established facts must give way. It is no small merit to have been able to do the good he did to those who had the fortune to be his students, and especially to those who began human anatomy under his guidance. That student must have been dull indeed who could not catch some spark of the enthusiasm which the Professor's quiet manner was inadequate to conceal. As he spoke, the dry details of anatomy were clothed with an interest of which the student had not dreamed, and which was a constant incentive to new exertions. But no words of ours can do justice to his merit, and we close by quoting, from the *Advertiser*, the conclusion of Dr. Holmes's tribute to his memory:—

"He was prompt to recognize the merits of those whom he considered in any way his superiors, generous in his estimate of equals, and a willing helper of all those who looked to him for any kind of knowledge he could impart. In a word, he was always the same honest-minded, sagacious, unprejudiced, sweet-souled and gentle-mannered creature of God, whom it was a joy to meet, a privilege to listen to, a regret to part from, whom it is a sorrow beyond words to lose, and whom it will always be a precious inheritance to remember."

THE tenth Report of the Trustees of the City Hospital is at hand; it includes, also, the report of Dr. Cowles, the Superintendent and Resident Physician, to part of which special attention is directed by the Trustees. We cannot help expressing at once a feeling of extreme satisfaction that this hospital has at last a sound plan of organization, and at its head a medical gentleman of enlarged and humane views, whose untiring energy has already made its mark in every department of the administration.

The great and increasing value of the City Hospital to the community is evident from the number of admissions (3,304) and of out-patients (9,272) of last year, as compared with 1,006 admissions and 1,143 out-patients in 1865. This value is still more evident on careful analysis of the diseases treated and the results. The number of accidental injuries alone was 804. The rate of mortality, .082, is diminished from .099 last year, the latter being due to the epidemic of small-pox. Of 3,197 patients discharged, 1,665 recovered and 1,061 were relieved. The net expense per week has been somewhat reduced.

The point, however, to which the Trustees specially refer, is in rela-

tion to the admission of patients under the new plan, by which the Superintendent is made admitting physician also. This would seem to be the natural and legitimate method, except for the extra labor it devolves on an officer already sufficiently burdened. Dr. Cowles examined, last year, 4,250 patients, rejecting 1,049 for causes which he carefully specifies. This in itself was no small task, considering our extended territory and the inability of many to present themselves at the hospital. The difficulty was increased by an endeavor to apply faithfully the somewhat contradictory rules and principles of admission laid down from time to time since the founding of the hospital.

First, it was found hard to eliminate the "victims of vice and intemperance," since these might also be victims of accident or disease; and, secondly, it was not easy to determine, in every case, the line between temporary necessity and pauperism. Dr. Cowles applied, in all these cases, the true touchstone, "Is it *humane* to reject this applicant?" The City Hospital, like the City Hospital for the Insane, was intended to be managed in the interests of *humanity*. It was meant to be a noble *charity* on the part of the city. It is well to keep this fact prominently in mind in matters of administration. "Victims of vice and intemperance" will continually present themselves with accidents, acute diseases, or exacerbations of chronic disease, requiring immediate temporary aid. It is not humane to reject these as a punishment or possible warning to others. While protecting itself in cases which can safely be referred to almshouses or other institutions, the hospital, in refusing aid to the former class, is like the Priest and the Levite, who did not even look to see if any Good Samaritan was following them.

The city, having given up the humane custom of caring for its own insane, may well afford to administer its remaining hospital liberally, not only with respect to the "vice and intemperance" restriction, but in dealing with all persons liable to become pauperized through sickness. No doubt many servants, laborers and mechanics, self supporting in health, would become paupers under the compulsion of sickness, except for this hospital. In this class of cases, too, the judgment of the admitting physician is all important. It is sometimes a nice medical point to decide whether the health of a sick person would be endangered by removal to a State almshouse, or rather by a rejection, which perhaps leaves the patient in the street. Into this question enters, not only the journey, but the moral effect of, and the probability of adequate treatment in, the almshouse. It is not by any means to be assumed that the patient's chances will be as good in one place as the other.

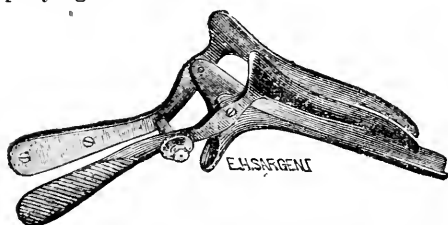
We have spoken of these perplexing questions at length, to show how important are the duties of the Superintendent in his capacity as

admitting physician, and to congratulate the hospital on an officer who will maintain those traditions of humane dealing likely to be lost sight of in the rapid increase of a floating population and the extension of our borders.

We are glad to see a prospect that the unhealthy basements beneath the present wings may become disused and given up wholly to purposes of ventilation, by the building of the contemplated new wards. Foreign cities are building hospitals on what they call the "American plan" of one-story, detached wards. The Presbyterian Hospital, of Philadelphia, building under the supervision of Dr. Mitchell, is to be entirely of this character; the Massachusetts General Hospital has similar wards. It is to be hoped that four stories of wounds and disease will no longer be superimposed, as at the City Hospital, but that a sufficient number of one-story wards will be at once erected to accommodate all proper applicants.

AN IMPROVED SPECULUM. By DANIEL T. NELSON, M.D., Chicago.—So many forms of uterine specula are now to be found in the stores, one may well hesitate to add to the number—already legion. But this variety demonstrates both the progress of gynecology and the probable fact that a perfect speculum has not yet been made.

The one I now offer the profession is very well represented in the accompanying wood-cut.



As will be seen, it is more like Nott's latest than any other instrument. It differs from Nott's in having the lower blade longer and of better shape to receive the neck of the uterus, and in having handles for elevating and holding the upper blades.

The measurements of the instrument are as follows:—Lower blade, four and one half inches; extending beyond upper blades five eighths of an inch; length of instrument, including handles, seven and one half inches. The upper blades are much shorter than the lower, to correspond with the anatomy of the parts, as the posterior vaginal wall is longer than the anterior.

Some object to Nott's, and doubtless will to this instrument, that it is too short. But no physician has any difficulty in reaching the os uteri, except in rare cases, with the index finger, the available length of which rarely exceeds three and one half inches, and the lower blade of my instrument is four and one half inches in length and the upper blades nearly four inches. If the os is not exposed when the instrument is expanded, the difficulty is not in the length of the instrument, but in its position, or because it is not sufficiently expanded to raise the anterior wall of the vagina.

To introduce the instrument:—The patient reclines on the back upon the gynecological chair, with the hip near the edge of the chair. Having ascertained the position of the os uteri, grasp the speculum with the right hand with the forefinger resting upon and projecting beyond the lower blade, and hold the handles vertical. Then carefully introduce the forefinger into the external organs and follow it with the instrument. When the instrument has passed beyond the external organs, it should be rotated so the handles shall lie horizontally; then, pushing the lower blade along the posterior wall

of the vagina, it will pass under the posterior labium of the os. Then, compressing and bearing downwards and backwards upon the handles, the anterior vaginal wall will be raised and the os exposed, when the handles can be fastened by the thumb-screw. The instrument is self-retaining when sufficiently expanded.

If the os is not at first exposed, the instrument, partially expanded, may be withdrawn a little so as to allow the lower blade to pass under the os; or the os may be raised by the forefinger inserted through the expanded instrument, by raising the anterior wall of the vagina, there being ample room for the forefinger to pass between the expanded upper blades. Or the os may be raised into the field of the instrument by a Simpson's sound, or like instrument, used as a lever. When the os is exposed, the uterus may be held in the field by a tenaculum, which can be fastened to a hook on the right upper blade.

My tenaculum is the same as Nott's, except that it has a handle like an applicator. When the tenaculum is fastened into the anterior labium of the os from below upward, it rarely is felt at all by the patient, and the little hæmorrhage which may occur will be of no disadvantage. The advantages claimed for this speculum are:—

1. Its length is such as to expose the uterus *in situ* by bringing it nearer the external organs, rather than pressing it deeper into the pelvis as do the longer instruments.

2. Thus giving a *better light*, which is often of great importance, especially when the physician is obliged to visit the patient at her home.

3. The instrument is so short, and the upper blades expand in such a manner as to readily allow of the rectifying of any malpositions through the expanded instrument, which is impossible in all the long instruments.

4. A large portion of the *vaginal walls* are exposed for examination and treatment, if needed, and by rotating the instrument the whole may be exposed.

5. While the blades are short, they are capable of expanding the vaginal walls more than any of the short instruments, and, indeed, more than most of the long ones.

6. The urethra and meatus are not pressed by the instrument, but lie between the upper blades, where they may be readily examined and treated if necessary.

I am under obligations to Mr. E. H. Sargent for the mechanical beauty and perfection of the instrument, and for the interest he has taken in its success.

The speculum may be seen at Sargent's 785 Wabash Avenue, corner of Sixteenth St., Chicago, and at Codman & Shurtleff's, Boston, Mass.—*Chicago Medical Examiner*.

TRAUMATIC FACIAL NEURALGIA.—C. P. C., æt. 55, married. Eight years ago the patient was struck in the face with a chair, it splitting the nose down to the right cheek. A month afterwards the wound was healed, leaving a cicatrice one and three-fourths inches in length. Two years later the patient felt a tingling in front of the ear and along the roots of the teeth of the upper jaw. There was a crawling pain and uneasiness, at times coming in flashes, as if many needles were pricking the cheek; it seemed to go from tooth to tooth. In the course of the five subsequent years, eleven sound teeth were extracted in hopes of relief. The pain then concentrated itself under the right ala of the nose, beneath the cicatricial tissue, upon which should any one press ever so slightly, a pain would start up all over the right side of the face. At last the pain extended over the entire side of the face up to the forehead. Momentary or continued pressure on the supra-orbital nerve, or on the eyeball, aggravated it so much that the tears would flow afterwards. As a general rule, whenever the patient swallowed either food or drink, the pain was agonizing; if he passed his tongue over the lips it felt like a hot coal burning him; if he pressed his lips together,

the pain, as he expressed it, was "tremendous." Even the act of speaking was attended with pain, coming on by fits and starts. At night the simple moving of the head, so that the pillow pressed on the cheek, would wake the patient up five or six times. On account of the continuous pain, morphia had been given subcutaneously to the amount of six grains every twenty-four hours. The interruption of sleep, the difficulty experienced in taking food, and the almost constant pain (there being about thirty spasms a minute), had reduced the patient to a very low condition. The various local and general means of treating neuralgia had been resorted to in this case without result. Finally, the patient resolved to try the chances of a surgical operation. It was decided to excise as large a portion as practicable of the infra-orbital nerve, and also, as there was great pain in the lower jaw and lip, excision of a part of the inferior dental nerve was thought necessary.

On the 25th of July, Dr. G. J. Vanvlack assisting, the patient being etherized, an incision, slightly concave towards the angle of the mouth, and measuring exactly two inches in length, was made on a line extending from a little below the coronoid process to the angle of the jaw. The fibres of the masseter muscle were exposed and separated in the line of the incision by means of a director. The periosteum was removed by means of a scraper as far as was necessary, in order to admit the crown of the trephine. Small retractors held the muscle and skin out of the way of the saw as it passed through the plate of bone—the disk being elevated and removed, the nerve was immediately exposed, and by means of a small blunt tenaculum was separated from its neighboring vessels; it was then cut with a pair of scissors. It had nothing abnormal in its external appearance. The disk of bone removed bore the imprint of the dental canal, running along at the side of the hole made by the centre pin of the trephine; one small, cutaneous vessel was tied. Leaving a dry sponge in the wound, a triangular flap of skin was then dissected up from under the right eye, the base of the flap being the infra-orbital ridge, while the apex pointed to the ala of the nose; three large branches (three-fourths of an inch in length) of the infra-orbital nerve were excised; eight small vessels were ligated, four silk sutures united the edges of the wound, leaving the ligatures to come out at the inferior angle. Three sutures were then placed in the lower wound, and two damp sponges were placed over each line of incision, and the whole side of the face was dressed with carbolized glycerine (1 to 10)—Lister's gauze and cotton wool; an injection of brandy was given per rectum during the operation; a subcutaneous injection of one-half grain of morphia was given directly afterwards. The pulse before the operation was 120, in the evening afterwards was 80; temperature 100; skin moist. The patient has had two naps in the afternoon. When he drinks, he fancies that the tumbler has a bit broken out of it; his wife has not seen him so comfortable for years. He himself says that he has had two slight flashes of pain. It is questionable whether this comes from the old trouble, or whether it is not a sensation similar to that which a person feels after a painful limb has been amputated; or again from the irritation of the proximal part of the nerve caused by the operation of excision.

July 26th.—Patient slept well all night; for many years he has not been able to drink more than a swallow at a time, now he drinks when he pleases, without pain; he feels more soreness on the left side of the jaw than on the operated side; has had a few tinges of pain in the upper lip; says he should not have noticed them if he had not had them before. Pulse, 82; temperature, 102.

July 27th.—Pulse, 72; temperature, 100. Patient has had considerable pain to-day, at times, when the bandage became displaced. The wounds look very well, that of the lower jaw especially; the face is but little swollen; has beef-tea and milk alternately every hour, also milk-punch twice during the day. Evening—pulse, 64; temperature, 100.

July 28th.—Pulse, 108; temperature, 100. Patient has had but one pain, early in the morning; at noon he had a cold feeling which soon passed away, leaving the skin very hot; the wound under the eye is suppurating at its

lower angle, but the other wound is dry, and the flesh seems to double in toward the line of incision, as if it were solidly united. Evening—pulse, 96; temperature, 102.

July 29th.—Pulse, 84; temperature, 101; has had no pain, whatever, to-day; takes his food regularly; drinks hot lemonade to help dissolve the mucus which collects in his mouth. Evening—pulse, 88; temperature, 102. Perspires freely after a nap.

July 30th.—There is an erysipelatous blush on the nose and right cheek, near the upper wound; there is a slight swelling, but no pain; the sutures were removed from both wounds, they had caused no apparent irritation; the lower jaw wound is united by primary union, and the rounding of the sides of the incision is quite perceptible.

July 31st.—Pulse, 76; temperature, 100.—The erysipelas has extended to the forehead and right ear; had a severe night sweat, followed by a chilly feeling; takes dilute sulphuric acid gtt. v. morning and night. The patient has not dared to put his tongue out until now, and is surprised to find that he can do so without pain.

Aug. 1st.—Pulse, 65; temperature, 97. Patient has had bottles to his sides and feet; has a tablespoonful of sherry every hour; beef-tea and boiled milk as usual; he feels comfortable but very weak; the left cheek and forehead are quite red; when he drops off to sleep he wakes up confused and slightly delirious; the face and forehead are kept moistened with carbolized glycerine, and the wet bandages form a water poultice all around his head.

Aug. 2d.—Pulse, 76; temperature, 98. Face less swollen and red. Patient feels better to-day; towards night he was taken with an uncontrollable twitching of the fingers of both hands. Pulse, 88; temperature, 103.

Aug. 3d.—Pulse, 65; temperature, 99. The redness is fading rapidly; patient has passed a good night, has no pains, and thinks that he feels better to-day than he has for many years. Evening—pulse, 65; temperature, 100.

Aug. 4th.—Pulse, 65; temperature, 100. All the ligatures were taken away to-day; no pain was felt after their removal; there is no discharge from the wound; the redness is quite gone. Pulse, 65; temperature, 100.

Aug. 5th.—Patient sat on the lounge all day, and is feeling quite well; the nose becomes red at intervals, but is not swollen; appetite excellent; bowels regular since the operation; he thinks that he has eaten more since he was sick than during the past year.

On the 10th of August the morphine was diminished to three grains daily, without inconvenience to the patient.

On the 15th the patient walked out of doors.

Aug. 22d.—He continues to take exercise daily; has no pain whatever, no paralysis of the face; eats well of what he pleases, passes excellent nights, and is on the way to speedy recovery.

The operation of trephining the inferior maxilla for excision of the dental nerve, was first performed in July, 1847, by Dr. J. C. Warren, of Boston. He "removed a portion of the inferior dental nerve by trephining the body of the jaw in a lady fifty-nine years old, and thus afforded her relief from an excruciating neuralgia of three years' standing." (*Surgical Observations with Cases*, by J. M. Warren, M.D., p. 477.)

The operation is known as the Warren method; its object is to excise the inferior dental nerve just after it has entered the foramen, and thus to avoid injuring the gustatory nerve. It is important to excise as much of the nerve as possible, since we know that simple nerve section is usually followed by a reunion of the divided ends; this reunion taking place, according to Paget, soon after division. It was observed by Dr. Waller that, after the excision of a portion of a nerve, its distal part atrophies and degenerates, the process taking much longer time in the human subject than in the lower animals.—Dr. C. B. BRIGHAM in the *Western Lancet*.

Correspondence.

LETTER FROM VIENNA.

VIENNA, AUSTRIA, August 12, 1874.

MESSRS. EDITORS,—I arrived here Sunday, the 9th inst., and visited, to-day, the K. K. public Hospital. In the following, I give you a short description of it.

This hospital was opened, as such, on Monday, August 16, 1784, about ninety years ago, by Emperor Joseph II. The buildings belonging to it were originally the great Vienna poor-house, founded by Emperor Leopold I., 1693, and finished in 1769. Emperor Francis I. made an addition to the oldest buildings, 1832 to 1834, and, in 1862, there was added the building for pathological anatomy.

The hospital contains 100 wards (59 for men and 41 for women), with 2000 beds, which are distributed as follows, viz.:—

For internal diseases (strictly medical),	407 men and 280 women,	687 beds.
For external (chirurgical cases),	314 men and 205 women,	519 "
For diseases of the eyes,	85 men and 76 women,	161 "
For diseases of the ears,	11 men and 8 women,	19 "
For venereal diseases,	222 men and 99 women,	321 "
For cutaneous diseases,	89 men and 49 women,	138 "
Reserve for variolous diseases,	14 men and 12 women,	26 "
Reserve for cholera cases,	10 men and 8 women,	18 "
For psychiatric cases,	39 men and 21 women,	60 "
For paying patients,	17 men and 14 women,	31 "
For students,	20 men,	20 "

1228 men and 772 women,

2000 "

The different buildings in which these wards are situated are divided by large yards, ornamented with flowers, bushes, trees and fountains, which is made necessary, as the part of the city where the hospital is situated is very densely built, and so the air is kept pure and fresh, and the patients have plenty of air to breathe.

Besides this hospital, there are two other public hospitals in the city for adults and one for infants and children up to the fourth year, and children above that age are taken care of in one of the others, together with the adult patients.

The following are the three other public hospitals, viz.:—1. The K. K. Bezirks-Krankenhaus Wieden, with 600 beds. 2. The Rudolph Stiftung, with 860 beds. 3. The St. Ann Hospital for Children. These three hospitals are under the direction of the K. K. public Hospital.

In this hospital, instruction is given in the different branches of medicine. During the summer term of 1873, there lectured in this hospital twenty professors, twenty-five privat-docenten and sixteen assistants. At the present time, most all the professors and docenten are absent from the city, as the summer term closes by the end of July and the winter term commences by the first of October.

M.

ABOUT THE PUBLIC SCHOOLS.

SEPTEMBER 11, 1874.

MESSRS. EDITORS,—Every train from the north, for a week past, has been bringing back the boys and girls to city schools. Many of them would be better off for an extra vacation. None of them would lose in knowledge if they were to be away another month. It is all very well to have the school opened for those who have not the means to keep in the country. But it is not the fear of losing information that hurries them back. It is the fear of losing double promotion. What is this double promotion that they are so

anxious to have? If some of the class are entitled to be put twice as far onward as the others, what have they been kept back for during the last year? It is a ruse to cheat the children into overwork. We have seen enough of the driving process in our schools. We have seen enough of the law-breaking in them, and of the shams for making people see what does not exist. It is time that a change was made.

The law says that no girl shall have lessons to get out of school. But the girl who does not wish to keep behind her class must study out of school; and not unfrequently do we find a girl broken down by working over her books till midnight. The law says that no boy shall have lessons to study out of school which will oblige a boy of ordinary capacity to study more than an hour. Every parent knows that they do have such lessons, and, in some cases, when complaint has been made upon this point, the answer has been in the form of an insult—"Is not your boy of ordinary capacity?" If the question concerning too long lessons be asked in school, the answer is sought for from a boy at the head of his class, who learns easily, and who is picked out for the purpose as a boy of ordinary capacity.

One of the shams, and a common one, is in estimating the percentage of attendance. This, as physicians, we are constantly having our attention called to. Last year, the Milk Street School had for average attendance 99.980 per cent. The State Street School had 99.983 per cent. This, of course, is the best school in the estimation of the public. How could it be? Why, Fanny Jones's mother was coaxed into letting her sick daughter report herself one afternoon, on condition of her being sent home at once, before she was to take her medicine; and the next morning her name was erased from the list of scholars, to be again entered in forty-eight hours more. If Tommy Tucker had reported in the same way, at the Milk Street School, there would have been a tie.

PARENS, M.D.

Medical Miscellany.

DR. C. J. B. WILLIAMS has been appointed Physician Extraordinary to Queen Victoria. A well-merited honor, say the English medical journals.

THE APPOINTMENT of Dr. Charles F. Folsom as Secretary of the State Board of Health is officially announced. Communications relating to the business of the Board should be addressed to him at No. 6, Park Square.

HOCK-DRINKERS will be sorry to learn that their favorite wine is now systematically and extensively adulterated in Germany. The Cologne Chamber of Commerce, in its yearly report just issued, does not mince the matter, but states that the "rectification" assumes alarming proportions among nearly all the vineyard proprietors of the Moselle, and among most of the makers in the Palatinate. It must be painful to a good many people in this country to learn that several of the Rhine-wine cellars contain more of the supposed 1873 vintage than the entire vineyards actually produced.—*Lancet*.

NELATON'S METHOD OF RESUSCITATION FROM CHLOROFORM NARCOSIS.—This method of treatment is based upon the hypothesis that death is due to cerebral anæmia, and consists in inverting the body, in order that by force of gravity the blood may be restored to the brain, while the respiration and circulation are renewed. Several striking cases of apparent death from chloroform narcosis have recently been reported in the *British Medical Journal*, in which resuscitation was accomplished by long-sustained inversion. The fact that no death from chloroform has been known to occur during labor is explained in this way: that, in active labor, there can be no cerebral anæmia, inasmuch as every pain throws the blood violently to the head, producing congestion of the cerebral bloodvessels, thereby counteracting the tendency of the chloroform to produce a contrary condition.

NOVEL DRESSING FOR WOUNDS, AND FOR STOPPING BLEEDING.—M. Vigier recommends a paste made by mixing two parts of modelling clay with one of glycerine, and so making an application which will be found convenient as a dressing and preservative at the same time.—*Dublin Medical Press and Circular*.

"Do you ever analyze blood?" said a cadaverous looking individual to me one day, at my office; "I can do it myself," he added. "I once took a scientific education in a high school, but I have no retort!" Thinking he meant dried blood, which is valuable for clarifying and other purposes, according to the percentage of soluble albumen it contains, I said "Yes." You may judge of my surprise when he informed me that, having been an invalid for twenty years, and trying in vain physicians of the various schools without relief, he was at last persuaded that his blood was deficient in some normal ingredient, or that there was lurking in it some subtle poison which the combined effects of even "sarsaparilla and iodide of potassium" and other "spring medicines," which he had absorbed in immense quantities, had failed to remove. He desired to have his blood analyzed to ascertain the nature of the disease, and in the most innocent manner possible inquired how much blood it would take to make the experiment. This story is strictly true as to its main facts.—*The Laboratory*.

ICED CLYSTERS IN DYSENTERY.—Dr. Wenzel, having had occasion to treat a great number of cases of dysentery, has found the best remedy to consist in the injection of ice-water into the rectum. It is an inoffensive, economical treatment, and gives extremely satisfactory results. The first case the doctor treated in this manner was one of severe dysentery. There were intense fever, abdominal pains, excruciating tenesmus, and profuse sanguineous evacuations. To check the hæmorrhage, injections of ice-water were ordered every two hours, which not only caused the sanguineous evacuations to cease, but also removed the tenesmus, enteric pains and fever. The beneficial effect of these injections was so evident that the patient urgently demanded their repetition whenever the pains threatened to reappear. Dr. Wenzel now considers this treatment more satisfactory than any other in acute cases, although in chronic cases it can only be expected to afford a temporary and palliative effect.—*L'Indépendente*, April, 1874; *New York Medical Journal*.

DIED.—September 4th, Daniel Little, M.D., of Goffstown Centre, N. H., aged 76.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and towns for the week ending September 5, 1874.*

Boston, 183; Worcester, 25; Lowell, 37; Milford, 3; Cambridge, 23; Salem, 13; Lawrence, 28; Springfield, 15; Lynn, 20; Gloucester, 3; Fitchburg, 6; Newburyport, 4; Somerville, 13; Fall River, 31; Haverhill, 7; Holyoke, 15. Total, 429.

Prevalent Diseases.—Cholera infantum, 106; consumption, 66; diarrhoea and dysentery, 25; typhoid fever, 15.

Lowell reports four deaths from diphtheria.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 12, 1875. Males, 105; females, 90. Accident, 8; aneurism, 1; apoplexy, 2; asthma, 1; abscess of liver, 1; inflammation of the bowels, 5; bronchitis, 1; inflammation of the brain, 2; disease of the brain, 2; cyanosis, 1; cancer, 3; cholera infantum, 53; cholera morbus, 4; consumption, 27; convulsions, 4; croup, 1; debility, 5; diarrhoea, 13; dropsy, 1; dropsy of the brain, 3; dysentery, 8; typhoid fever, 2; disease of the heart, 8; hepatic malformation, 1; intemperance, 1; disease of the kidneys, 3; congestion of the lungs, 3; inflammation of the lungs, 3; marasmus, 7; measles, 1; old age, 4; paralysis, 1; premature birth, 3; puerperal disease, 1; purpura, 1; rheumatism, 1; disease of the spine, 1; spina bifida, 1; teething, 2; tetanus, 1; whooping cough, 4.

Under 5 years of age, 109; between 5 and 20 years, 6; between 20 and 40 years, 31; between 40 and 60 years, 26; over 60 years, 23. Born in the United States, 142; Ireland, 38; other places, 15.

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Original Communications.

PAPILLOMATOUS DEGENERATION OF THE LEFT OVARY;
REMOVAL; TRANSFUSION; DEATH.

By H. O. MARCY, M.D., of Cambridge.

Mrs. M., æt. 29. Finely developed woman, of a healthy family. Married three years; one miscarriage, two years ago. Menses regular, but lately scanty.

First seen Nov. 26, 1873. Well until previous May. Suffered pain in the left side last September, and since, at times, dragging weight in pelvic region. Not seriously ill at any time, but, for the last few weeks, has noticed an increasing fulness of the abdomen, with a considerable loss of appetite, flesh and strength. The abdomen contained an oval, symmetrical body, nearly in median line, reaching a little above the umbilicus, about as large as the gravid uterus at the sixth month. Patient supposed herself pregnant.

Next seen Dec. 14th. Mrs. M. had, two weeks after last visit, Dec. 11th, indulged in dancing, and, suddenly complaining of abdominal pain, fell insensible to the floor. Since, quite ill; much of time in bed. Now, the abdomen is greatly enlarged, measuring $37\frac{1}{2}$ inches at umbilicus, and is distinctly fluctuating; changes somewhat with position. Uterus measures two and one half inches in depth, and is retroverted laterally to the left, but movable. Other organs healthy. Diagnosis, ovarian cyst.

Dec. 22d.—Patient, who has suffered extremely during the past week, is seen by Dr. Cheever, in consultation. Decided to relieve by tapping. The 24th, Dr. Cheever removed fourteen pints of a yellowish-green, clear fluid. Specific gravity, 1020; coagulated solid with nitric acid; slight flocculent sediment, containing blood disks, pus cells, and a few delicate stellate crystals.

The fluid ceased to flow, although a considerable quantity, with a firm, resisting mass, remained in the abdominal cavity. Diagnosis, doubtful; thought by Dr. Cheever to be probably subacute peritonitis, with a large deposit of lymph.

Patient slowly rallied after the operation; absorption of the free fluid took place, leaving an irregular, indistinctly fluctuating mass, filling the pelvic cavity and extending laterally to the crest of the left ilium, and reaching, on median line, half way to umbilicus.

The uterus was now immovable, and the contents of the pelvic cavity fixed and inelastic.

A gradual enlargement took place during the last of January and in February, until the tumor extended from the right ilium laterally, above the umbilicus, to the left renal region. The left side was much

distended and perfectly fluctuating, with a thin wall; and especially, in the light of the previous history, seemed in imminent danger of rupture.

The exploring needle showed the contents of the cyst to be a thin purulent fluid. To the right, in Douglass's fossa, was a fluctuating point, which, aided by Dr. Hildreth, I punctured, expecting to drain the large sac from the vagina. Two or three ounces of clear, straw-colored, albuminous fluid escaped from a sac which admitted sound two inches. We enlarged this opening, to admit the finger.

The tumor steadily increased, and the condition of the patient became one to cause much anxiety.

March 4th, I carried a long, slightly curved trocar through the previous opening obliquely towards the median line, four inches above the roof of the vagina, into the large sac, and drew off forty ounces of pus, with great relief to the patient, although a firm, fixed mass remained, nearly filling the pelvic cavity. A sound was occasionally passed through the vaginal opening, and drainage in small amount continued afterward. Soon after this, red villous masses escaped from the opening, which Dr. Fitz pronounced papilloma.

The diagnosis was at last undoubted. Primarily an ovarian cyst, which ruptured, allowing the escape of its fluid contents into the abdominal cavity; subacute peritonitis followed, and now, a multilocular cyst, more or less filled with hypertrophic villous masses, closely bound by adhesions to the pelvic cavity.

During March and April, the patient improved very much in her general health, although the tumor was slowly enlarging.

Mrs. M. determined upon the attempt of removal, after full explanation of her unfavorable condition and the great gravity of surgical interference.

May 7th.—The operation was performed by Dr. Cheever, assisted by Drs. Underwood, Hildreth and myself. The cyst was firmly adherent anteriorly, and, attempting its separation, the thick, friable walls ruptured, allowing the escape of a portion of its fluid contents into the abdominal cavity. Extensive adhesions to the omentum, intestines and parietal walls were carefully separated, and required several ligatures. It was necessary to carry the incision two inches above the umbilicus. The pedicle was broad and thick, was clamped, but too short to be brought out externally, and was secured by a double ligature and left in the pelvic cavity. A large-sized Sims's drainage tube was carried through the vaginal opening and lower angle of the wound.

The cyst contained about a quart of purulent fluid and several large papillomatous growths, which were easily broken down and proved a source of very troublesome hæmorrhage. The right ovary contained a cyst of the size of an English walnut, which was easily enucleated.

Owing to the great loss of blood and the tedious dissection of the adhesions, the patient's condition was one to cause anxiety, and the latter stages of the operation were hastened as much as possible. The patient rallied slowly and imperfectly from her almost moribund condition.

There was slight nausea, no vomiting, no bleeding, no pain. Took beef-tea and brandy, in small doses, frequently. Enema of the same every two hours. Evening temperature, 99°. Pulse 112. Extremities warm. Urine freely secreted. Mind clear. Slept some.

May 8th.—Had a comfortable night. A watery fluid, mixed with

blood, flows from the tube. The abdominal cavity is washed every six hours, with a weak solution of carbolic acid, until it flows clear.

Noon.—Temperature 100°, and pulse 120. Tube obstructed, and the contents, which were washed out, were foetid. The microscope shows monads, bacteria, &c., in abundance.

May 9th, A.M.—Slept part of night. No nausea; no pain; abdomen not tympanitic. Temperature 102°; pulse 140, weak. Extremities cold. Rapidly sinking. Decided to try transfusion, Aveling's instrument being used. Dr. Cheever easily introduced canula into vein of patient, but was less fortunate with the husband. After a prolonged trial, the vein having been opened as in ordinary bleeding, introduction of the canula proved so troublesome that the collected blood was defibrinated, strained and transfused to the amount of about three ounces, with no appreciable change on the part of the patient.

P. M.—A second trial was made by myself; a brother, with large veins, volunteering for the purpose. Profiting by the experience of the morning, the vein was dissected, and a director placed beneath before being opened. Great care was used in first filling bulb with warm water, working steadily and rapidly, with plenty of assistance. Three or four ounces were introduced without trouble, when, upon gentle pressure of the bulb, the blood refused to flow. The instrument, removed from the canula, was at once placed in warm water, and yet the bulb was so firmly filled with a clot that it was removed with the greatest difficulty. The transfusion was again continued, without further trouble, until five or six ounces of blood had been introduced. At first the patient, whose intellect was perfectly clear, thought she felt a little stronger, but, towards the close of the operation, complained of weariness. It is doubtful if the heart's action improved even temporarily, and within a few minutes respiration faltered and death supervened suddenly.

I have been the more minute in the above description, because of the interest at present felt in the operation of transfusion, and the limited experience of its uses by the profession. The use of the Aveling instrument is described as being so simple, easy and free from danger that an amateur might easily make use of the same under the most unfavorable circumstances. Admitting the seeming simplicity of the instrument, I apprehend that in its present form at least, however familiar by experience, its use cannot be looked upon otherwise than as a somewhat formidable operation. The difficulty of the proper insertion of the canulae, the liability of the introduction of air—perhaps not so grave a danger as formerly apprehended, as I have once seen air-bubbles introduced with the current without harm—and the danger of clots carried into the circulation, are obstacles of no slight magnitude.

The *post-mortem* appearances were not especially instructive. A portion of the parietal walls was already gangrenous and the wound highly foetid.

Cause of Death.—The patient did not fairly rally from the loss of blood and shock of the operation. Widely denuded portions of the peritoneal surfaces offered ready means for the absorption of the pelvic fluids, which, although carefully removed by drainage and washing, early became in a high degree septic.

In the small cyst enucleated from the right ovary, the hypertrophic

elongation of the papillæ given off from the cyst wall was of the most delicate character, while the cyst wall itself was extremely thin and fluid contents clear. The walls of the large cyst were extremely thick, friable and easily broken, and projecting therefrom were villous masses, from the size of the fist downwards, and of an intense red color. These presented, at base, a slight frame-work of connective tissue, were arborescent, and covered by epithelium, presenting an appearance, under the microscope, not very unlike the villi of the chorion. This form of villi undoubtedly takes its origin from the epithelial lining of the hypertrophied follicle, and in this respect bears a close analogy to epithelioma, as seen in other parts of the body. That they are usually of a benign character, i. e., do not return after removal, is shown by clinical as well as histological evidence. In exceptional cases, they are probably malignant.

Solid ovarian tumors are occasionally met with which have an origin similar to the above, i. e., the cyst ruptures, the papillomatous masses increase, causing an eversion of the sac, the walls of which form the base of a proliferating tumor, more commonly called cauliflower cancer.

REMARKS ON THE INVASION OF THE EXTERNAL AUDITORY MEATUS BY INSECTS, WITH REPORT OF SEVERAL CASES.

By SAMUEL THEOBALD, M.D.

Ophthalmic and Aural Surgeon to the Baltimore Charity Eye and Ear Dispensary.

THE invasion of the external auditory meatus by insects is, comparatively speaking, a rare occurrence. In the healthy condition of the parts, owing to the presence of the cerumen, which coats the walls of the outer third of the canal, and is extremely offensive to their tastes, it seldom happens that they intentionally pass inwards beyond this protecting zone; while the conformation of the external ear, the smallness of the opening itself, and the lateral position of the organ, render an accidental entrance scarcely more common. When, however, through disease or filth, the normal condition is changed, it may so happen that, not only are they no longer repelled by the secretions of the ceruminous glands, but that they may be, according to their habits, even attracted by the altered character of the contents of the ear.

A striking illustration of this has recently come under my observation, and seems not unworthy of mention. A lad, nine years of age, was brought to my office, in December last, suffering with otorrhea. Both ears were similarly affected; and the discharge, which was very offensive, had commenced some two years before, without assignable cause. The meatus auditorius being filled with semi-fluid pus, the syringe was resorted to, in order that the deeper structures of the ear might be brought to view, and their condition noted. To my surprise, the stream of water not only brought out of the ear, first syringed, a considerable quantity of thick pus, but, also, the bodies of two flies (common house-flies). They were thoroughly macerated and softened, and presented the appearance of having been for a long time subject to the action of the fluid by which they were surrounded.

The other ear was next syringed, and if my first discovery had surprised me, I had certainly occasion to be astonished when exactly the same condition of things revealed itself in this one. Two more flies, presenting the same macerated appearance, came out of the second ear, together with the pus in which they had been embedded.

The patient had an indistinct recollection of a fly having gotten into his ear during the previous summer, and it is most probable that at that time, the flies, whose bodies I had discovered, being attracted by the odor of the discharge, had entered the auditory canals, and, being unable to extricate themselves, had perished as a punishment for their greed. The ears not having been syringed, and the discharge not being copious, they had remained undisturbed until discovered as above related. The mother did not think it at all likely that he would have put the flies into his ears himself, as he was "not a mischievous boy." Large perforations were discovered in both tympanal membranes, which accounted for the long continued otorrhœa.

In writing the account of the above case, I am reminded of a somewhat similar one which I have heard Prof. Politzer describe at his clinic in Vienna. Upon one occasion he syringed from a patient's ear, together with a quantity of inspissated cerumen, the bodies of three different insects; if I mistake not they were those of a flea, a louse, and a bed-bug.

My grandfather, Prof. N. R. Smith, has, during his extended experience, met with several remarkable instances of the entrance of insects into the auditory meatus. In one instance he encountered a case very much like that described by Politzer, except that but two insects instead of three were discovered. He relates also another, which occurred in the practice of his father, the late Prof. Nathan Smith, of Yale College, in which a fly having blown in a man's ear, during sleep, the maggots, presently coming in contact with the membrana tympani, created such an uproar, and sensations so unbearable, as almost to drive the man frantic before relief could be obtained. In another case, a honey-bee flew suddenly into the ear of a man who was quietly walking in his garden. At once the man was thrown into such a state of frenzy and excitement that he was unable for some moments to explain what had happened, and those who beheld his actions concluded that he had suddenly gone mad.

Sir William Wilde says in his book upon diseases of the ear: "I remember being out shooting on a plantation many years ago with a friend, who, suddenly exclaiming, 'Oh! an earwig,' and throwing aside his gun, fell on the ground, making the most piteous moans, and rolling about in convulsive agony." Sir William relates that, having procured some water from a neighboring ditch, he poured it into the meatus, and, watching for the result, soon saw "a little animal, well known among anglers as the hawthorn fly," creep out, and the gentleman was at once relieved.

Some months since, a patient came to consult me, saying that during the previous night, while she was asleep, a bug had crawled into her ear and had caused her great suffering, which was finally relieved by pouring into the ear laudanum and glycerine. I discovered in the meatus a cockroach, which had penetrated to the inner extremity of the canal before the remedies used had succeeded in destroying its life. After removing it, the membrane and the walls of the meatus in

proximity to it were found to be highly congested, but no further trouble resulted.

The movements of the wings and feet of insects in contact with the drum membrane produce most distressing and painful sensations, as the descriptions of the cases I have mentioned show, and it becomes, therefore, a matter of the first importance, when living insects have entered the meatus, to be able, as quickly as possible, to kill them; after which they may be removed at leisure, and with greater ease, either by syringing or by the forceps if necessary. This may be best accomplished by pouring into the ear a small quantity of any mild oil, or of melted lard; although the most popular remedy for this purpose is human urine. With this latter remedy I have had no experience, but it certainly possesses the advantage of being always available, and I doubt not would be quite efficacious.

Translation.

ON SPRINGING* FINGERS.

By DR. ARTHUR MENZEL, of Triest.

From the *Centralblatt für Chirurgie*, August 29, 1874.

NOTHA and Nélaton have described a peculiar, partial stiffness of the finger which, though in other respects normal, resists for some time all efforts to flex it, and then suddenly shuts up, like a pocket knife, with a painful snap. Extension occurs in the same way. Nélaton thought he had discovered, in the flexor tendon, a small, round, movable body, which he considered the cause of the trouble. He holds that, as soon as the finger begins to bend, this body meets with resistance from the fibrous bands which strengthen the sheath of the tendon, but that on continuance of the effort it squeezes itself under these bands and springs out on the other side of them. W. Busch, however, has examined two cases without discovering anything unusual, either in the joint or in the sheath of the tendon.

I shall allow myself to add to the few cases that have been observed a new one, which, partly by itself and partly by the experiments it induced me to undertake, may lead to the explanation of this remarkable phenomenon. Marie Froman, embroiderer, aged 42, of Triest, suffered, during the past winter, from rheumatic pains in the lower extremities. Two months ago (May 16, 1874), while at work, she suddenly felt so sharp a pain in the region of the metacarpo-phalangeal joint of the right thumb that she cried out. She thought that she had run a needle or a thorn into the flesh, but, after a careful examination, entirely dismissed the idea. From that time, the pain never entirely left her, by day or night. After a fortnight, she first noticed the springing of the thumb, and, at times, was unable to bend it.

When I examined the patient (July 16th), I found the following condition: resistance is felt when the last phalanx of the thumb is bent to an angle of 150° ; if the flexion is continued with a moderately increased force, the last phalanx suddenly flies, with a slight snap, to an

* This adjective hardly corresponds to "schnellend" in the original, but the meaning is shown in the first sentence.

angle of 90° (with the first phalanx). It springs in the same way when the attempt is made to bring it from the flexed to the extended position. The occurrence is the same whether the motion is active or passive.

The patient, as well as those that examined her, referred the springing and the snapping to the joint between the phalanges, but a very thorough examination showed nothing abnormal there. There is no swelling, and entire freedom from pain, even during hard pressure. On the contrary, there is a very tender point during pressure on the flexor tendon opposite the metacarpo-phalangeal joint, and at the same place on the ulnar side of the tendon there is a small, elongated, hard and immovable body, which appears to be the origin of the pain. Precisely the same prominence is found in a corresponding portion on the other thumb, only in the left hand it is entirely painless.

The case is remarkable on this account, that the springing apparently takes place in the joint between the phalanges, while the great pain on the palmar surface of the metacarpo-phalangeal joint makes it highly probable that the cause of this springing lies in some affection of the tendon and its sheath.

With my assistant, Dr. Shisa, I undertook some experiments on the cadaver to make artificially springing fingers. We first proposed to ourselves the question, is a circumscribed thickening of the tendon—a tumor—alone sufficient to cause this phenomenon? The tendon of the deep flexor was laid bare to a small extent opposite the second phalanx and tightly surrounded by from two to four turns of a thread, which thus formed a small circumscribed tumor of the tendon. The tendon was then returned to its sheath, and movements made, sometimes by simply bending the finger, sometimes by drawing on the corresponding tendon, which was laid bare at the wrist. The movements were less smooth than usual, but had no springing character. This appeared only when, with a tumor of the tendon, the resistance of the sheath was either decidedly increased or diminished.

In order to increase the resistance, we made an artificial contraction of the sheath by firmly tying the sheath, after it had been opened as before, together with the enclosed tendon. The movement was smooth till the tumor of the tendon reached the contraction of the sheath, and then it stopped at once; but, on increasing the strain, the finger sprang with a snap into the intended position. The feeling was precisely as if the trouble was situated in one of the joints of the finger. On the other hand, the springing can be easily caused by taking away the resistance of the sheath by removing a small piece of it.

Inasmuch as Nélaton's cases seemed to imply that this phenomenon was due to bodies in the sheaths of the tendons, I introduced, through very small openings, foreign bodies, such as millet and hemp seeds and grains of rice, and pushed them with a probe some way into the sheath. These bodies usually slipped to the sides of the tendon, but as a rule moved with it very slightly or not at all. Springing never occurred.

The following conclusions appear to me justified by what has been said :—

1. The springing must always be due to an affection of the sheath; the examiner has, however, always the impression that it occurs in a joint of a finger.

2. Neither a circumscribed tumor of the tendon without contraction of the sheath, nor such a contraction without a tumor, is sufficient. Both are necessary.

3. The springing can occur as well when, besides the presence of a tumor in the tendon, there is a corresponding rent in the sheath.

4. Free bodies do not cause springing, even when a contraction of the sheath coexists. The tumors and contraction are probably products of inflammation.

As to the case reported above, I should add that the springing disappeared in a few days after tincture of iodine and warm baths; but the motions of the thumb continued to be very painful, and work is still out of the question.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. EDES, M.D.

(Concluded from page 279.)

ATROPIA AND CALABAR BEAN.

M. MARTIN-DAMOURETTE publishes in the *Journal de Thérapeutique* a series of articles with experiments upon eserine and atropia as mutual antidotes. As the question is one of but exceedingly limited practical value, and as the theoretical deductions are, as yet, far from clear, we present only a few of the results.

The action of small doses of atropia as an antidote to poisonous doses of eserine is incontestably proved as to animals, but should not be tried upon man except with great care. (The experiments of M. Martin-Damourette were made upon birds, cats and frogs. Those of Prof. Fraser, who found a wide range of antagonism between the two poisons, were made upon rabbits, which bear doses of atropia relatively and absolutely enormous as compared to those which are poisonous to man.)

The coinciding effects, either convulsing or paralyzing, of the two substances, given in larger or smaller, but non-poisonous doses, may be added to each other and cause death.

The neuromyolysis, which each of them produces, reduced to therapeutic proportions by the moderation of the dose, would authorize their employment in combination in the treatment of certain convulsive neuroses, and in particular of tetanus. It may be added, to give the practical question its true bearing, that one, at present, almost never has to treat a case of poisoning by calabar bean, either accidental or otherwise, while it is not rare to see poisoning by belladonna or atropia. (Less common with us than in Europe, where the belladonna berries are eaten by children.)

Unfortunately, both the experiments of Martin-Damourette and those of Fraser show that the preparations of calabar bean cannot be used to counteract poisoning by belladonna, since doses of atropia, inferior by more than half to the fatal one, are rendered fatal by the administration of non-poisonous doses of eserine, this taking place by the addition of poisonous properties of the two substances acting in the same direction.

MM. Rossbach and Frölich (*Journal de Thérapeutique*, No. 9, p. 357) have also experimented upon the antagonism of atropia and eserine. They find that in very minute doses, atropia contracts the pupil, while in very large ones, eserine dilates it, so that as regards this symptom, the two substances antagonize each other only in the middle range of their action, while they coincide at the extremes.

As regards the heart, in some animals, atropia in very small doses diminishes the number and increases the vigor of the pulsations. Larger doses paralyze it. Small doses of eserine produce but little effect upon the heart of the frog, but larger ones produce a complete paralysis.

MM. Rossbach and Frölich therefore have but a limited belief in the antagonism of the two drugs.

E. Harnack (*Archiv für Experimentelle Pathologie und Pharmakologie*, 1874, p. 307) criticizes, with apparent justice, the above experiments as not being conducted with the necessary precautions to justify conclusions so different from those reached by many previous investigators. He then adds a series of his own, which go to show that the slowing of the heart, asserted by these authors to take place with small doses of atropia, does not exist, and, when occurring in their experiments, was due to other causes than the specific action of the drug.

DIGITALIS.

Dr. Götz (*Archiv für Experimentelle Pathologie und Pharmakologie*, 1874, p. 123) has examined, chemically and physiologically, three substances obtained by Nativelle from digitalis. These are digitalin and digitin, crystallizable and soluble in alcohol, and digitalein, amorphous and soluble in water. Digitalin and digitalein are both active, digitin inert. Götz was able to obtain from the specimen of digitalis at his disposal only an exceedingly small quantity of digitalin, but a considerable amount of digitalein, and supposes that the dried leaves frequently contain but very little of the crystallizable principle. It seems that these facts may account for the uncertainty of the action of tincture of digitalis, which may or may not contain crystallizable digitalin, while the more reliable watery infusion is sure to contain amorphous digitalein, which is equally efficacious. Nativelle considers digitalein to be the active constituent of the officinal (not crystallized) so called digitalin.

It has generally been supposed that the diuretic effect of digitalis depends not on any specific diuretic action of the drug, but entirely upon its ability to increase the blood tension in the arterial system in general.

Drs. Brunton and Power (*Centralblatt*, July 4, 1874, p. 497), however, conclude from their experiments that this is not the case, since the secretion of urine diminishes, or even ceases, when the blood pressure reaches its highest point after the injection of digitalin, and reappears as the pressure begins to fall. They suppose that digitalis contracts the vessels of the system in general, and those of the kidney in particular, and that the latter are probably the first to relax and dilate, thus allowing a local increase of pressure in the malpighian bodies as the general pressure diminishes. They admit also the possibility of a direct action upon the secreting structure of the gland.

JABORANDI.

M. Coutinho, of Rio Janeiro, describes in the *Journal de Thérapeutique*, No. 5, p. 161, the effects of a Brazilian plant, known to the natives as jaborandi. It appears to be by far the most powerful diaphoretic known, not depending for its powers, like most other diaphoretics, in great part upon the heat of the menstruum. It may be taken in cold infusion. The salivary secretion is also greatly increased, so that the patient is for a time almost unable to speak, so rapidly does his mouth fill with fluid. The bronchial secretion is also augmented.

M. Gubler, the editor of the periodical just quoted, has confirmed the observations of Dr. Coutinho. He has several times collected a litre (about a quart) or more of saliva in less than two hours. One of his pupils, who perspires with great difficulty, obtained a sweat by taking, while sitting up, a cup of the infusion scarcely warm. He says that the plant brought by Dr. Coutinho is the first undoubted example of a diaphoretic truly worthy of the name, that is to say, a drug having the power directly to provoke the secretion of the sweat by a special stimulation of the sudoriparous apparatus.

The specimens brought by Dr. Coutinho, having no flowers, could not easily be identified; but, from a comparison with a collection of Brazilian plants, it appears that jaborandi is identical with a species of the family rutaceæ, the *pilocarpus pinnatus*, growing in the province of St. Paul in Brazil.

Rabuteau (*L'Union Médicale*, 1874, No. 45, and *Centralblatt*, 1874, p. 528) has still further confirmed, by experiments upon himself, the statements of Coutinho.

APOMORPHIA.

E. Harnack (*Archiv für Experimentelle Pathologie und Pharmakologie*, p. 254) concludes from his experiments on various animals, that although the name of emetic, as applied to apomorphia, is practically a suitable one, yet it is theoretically incorrect, for the emetic action is only one link in the chain of its effects, although practically the most important, and in animals which vomit easily, the most striking.

The action of apomorphia is chiefly limited to the nervous centres, those of respiration, voluntary motion, sensation, and also of vomiting. These are excited by small doses, and paralyzed by very large ones. Muscular relaxation, either from a paralyzing influence upon the muscle itself or upon the nervous centres, is also an effect. The former condition (direct paralysis of the muscles) may be observed in the frog.

The heart is paralyzed in the frog.

So far as the therapeutic application of apomorphia is concerned, the collapse frequently observed in children after its use is the only point demanding attention. Without recommending its disuse with children, the author says that the dose, instead of the usual $\frac{1}{2}$ or $\frac{2}{3}$, should be only from $\frac{1}{150}$ to the $\frac{1}{60}$ of a grain, which, he says, will not fail of its effect.

M. Carville (*Journal de Thérapeutique*, No. 14, 1874, p. 552) recommends the employment of apomorphia in cases of poisoning. The subcutaneous injection of one centigramme ($\frac{1}{4}$ grain) produces powerful emetic effects. The solution should be made at the time, since it rapidly decomposes. (Harnack found a solution efficacious which had

been kept a year and was of a deep green color, and refers to Quehl for a similar observation.) In powder apomorphia keeps well.

M. Raymond has observed the good emetic effects of apomorphia in the wards of M. Vulpian, who uses it as the habitual emetic.

Jurasz has used apomorphia as an expectorant, and finds that in cases of tracheitis and bronchitis, including inflammation of the smaller and smallest bronchi, the tough mucus, expectorated with difficulty, is easily dissolved, the sputa become more copious, and the expectoration easier; the improvement in the physical signs corresponds, the râles at first dry, sibilant and sonorous, becoming moist and gradually decreasing.

The dose for an adult is from the $\frac{1}{65}$ to $\frac{1}{22}$ of a grain, in water, syrup and muriatic acid.

ARSENIC.

Unterberger and Boehm (*Archiv für Experimentelle Pathologie und Pharmakologie*, 1874, p. 89) have made a series of experiments which tend to modify the views generally held as to the *modus operandi* of arsenic. They find that arsenious acid injected into the blood of mammals produces an enormous fall of the blood pressure, together with a slowing of the pulse. This phenomenon is due in part to a paralysis of the abdominal vessels, in part to a diminished contractile force in the muscular substance of the heart. The cardiac nerves, however, retain their normal condition, and the vessels of the sympathetic territory (head and neck?) are not paralyzed.

They find also that the symptoms and post-mortem appearances produced when arsenic is injected into the blood are not distinguishable from those found when it is taken by the mouth, except that the fatal dose is larger in the former than in the latter case.

The amount of the mineral found in the intestinal canal, when an animal was killed by arsenic injected, was too small to account for the local appearances on the theory usually held, i. e. its elimination by the stomach and the production of irritation on its passage through the secreting organs.

They content themselves with thus indicating the untenability of the usual views of arsenical poisoning, without endeavoring to construct a complete theory of their own.

CUNDURANGO.

Obalinski (*Centralblatt*, July 25, No. 36, p. 561) reports two cases, one of a woman of 80, with a shallow epithelial cancer of the lower eyelid, and another of a woman *æt.* 50, with a cancrroid as large as a bean upon the side of the nose, constantly returning after cauterization with caustic potassa, both of whom were treated with a decoction of cundurango bark, fifteen grains three times a day internally, and an external application of charpie soaked in the same.

After six weeks of treatment, both the ulcers were healed. He attributes two previous failures of the same medication in cancers of the foot and of the temple to the use of inferior preparations.

(This surgeon would probably be interested in the fatal result of the case of the lady who furnished such a large advertisement for Bliss & Co., and who must have enjoyed every facility for obtaining the very best article the market afforded, and whose surgeon if anybody did, how to prepare it.)

Bibliographical Notices.

Essays on Conservative Medicine and Kindred Topics. By AUSTIN FLINT, M.D., &c. Philadelphia: H. C. Lea. 1874. Pp. 214.

THE distinguished reputation attained by the author as a teacher and writer predisposes the reader of these essays to believe that they will present to him very much that is suggestive and instructive; and a perusal of the book does not falsify the hope. Elegant, forcible and direct in style and diction, these gathered contributions to medical literature, extending over a considerable period, and first published under varied conditions, are the fruits of a mature experience and an accomplished mind, and represent the best thought of American physicians concerning the topics discussed. The author deserves the thanks of the profession for republishing the essays in their present form. From the fact that some of the writings dealing with allied topics, were originally published in different medical journals, the reader will notice something of repetition in ideas and expression; but the re-iteration affects matters that bear such treatment well.

The first three essays discuss what the author denominates "conservative" medicine. Getting a suggestion for the term from the well understood expression "conservative surgery," the essayist defines his subject as including "everything which prevents impairment of, or tends to develop and sustain, the powers of life." "The conservative surgeon aims to preserve the integrity of the body. * * * The conservative physician shrinks from employing potential remedies whenever there are good grounds for believing that diseases will pursue a favorable course without active interference." It will be seen that the term "conservative medicine," so employed, has a synonymous meaning with the expressions "rational medicine," and "expectant treatment."

The author develops his idea with logical clearness and consistency. He traces the changes from the "heroic" practices of former times to the more reasonable methods now prevailing. The earliest and fullest development of the new order is awarded to New England, to the writings and teachings of Bigelow, Jackson and Ware, the legitimate fruit of advanced scientific research. After an interesting historical review of the change in medical thought and practice, and of the reasons therefor, the author examines more in detail the application of conservatism to therapeutics and hygiene.

In the fourth paper, an anniversary discourse, Dr. Flint gives an exceedingly interesting sketch of recent advances in medical science. Incidentally, he alludes to auscultation and its value as an aid in diagnosis. For the younger generation of physicians, it is rather difficult to realize that so late as 1836 the stethoscope was spoken of slightly by writers who stood high in the profession, yet our author so asserts.

The study of the natural history of diseases receives in this essay well merited attention; the writer says that by this study physicians have found out that many diseases are self-limited, that they tend intrinsically toward recovery, and that they have a well-established individuality.

The fifth essay is devoted to a discussion of alimentation in disease. The author makes a strong plea in favor of generous diet in the treatment of diseases. "If we except," he says, "the early stages of some acute diseases, in which it may be an object to withhold aliment with an indirect reference to depletion, there is never any risk of hypernutrition."

In the sixth paper, we have a broad and intelligent view of the meaning of tolerance of disease—the ability of the vital powers to endure morbid processes, whether acute or chronic. "Conservatism in medical practice is the protection and promotion of tolerance"—the economizing of vitality.

The seventh essay deals with the reciprocal influences of the mind and body on the causation, prevention and cure of diseases.

The closing article has for its purpose to prove that the existence of dis-

ease is an evidence of Providential design in the affairs of the world—that disease is a part of the plan of creation, and ordered for a benificent purpose. The author adduces many pertinent illustrations from his clinical observations to confirm his proposition. The essay was addressed to a popular audience, but it is characterized by a depth of research and a catholicity of judgment that must make it instructive to even the most scientific reader.

We have given only the barest outline of these exceedingly interesting essays. To say that they are deeply suggestive, that their tone is healthy and their tendency salutary, is scant praise. They are creditable to the head and the heart of their distinguished and widely respected author.

Nomenclature of Diseases: Prepared for the use of the Medical Officers of the United States Marine Hospital Service. By the Supervising Surgeon (JOHN M. WOODWORTH, M.D.). Washington: Government Printing Office. 1874.

THE "Provisional Nomenclature" of diseases, drawn up by a joint committee appointed by the Royal College of Physicians of London, England, has been adopted by the United States Marine Hospital Bureau "as the nosological system to be observed by medical officers of the service in their reports and communications." This action has been taken by the Bureau in the belief that the "Provisional Nomenclature" forms the most promising basis for a standard and international nosonomy and classification, being subject to a decennial revision, in which it is probable that the profession in this country will be represented, and being, moreover, the work of men of the highest standing in the profession. This is the first official adoption of the work in this country, although the classification of diseases in the statistics of mortality for the IXth Census of the United States was practically made in accordance with it. It has also been endorsed by the action of the American Medical Association. The present edition is a copy of the English original, with the omission of the French, German and Italian equivalents. We think this omission, although it would doubtless have increased the size of the book beyond desirable limits to retain them, is nevertheless to be regretted, the extent to which German and French works are consulted by the profession in this country making the presence of these two languages, at least in the nomenclature, almost indispensable. A very complete and valuable index accompanies the book, making it doubly useful for reference. We are glad to see works of this kind executed under Government auspices. The printing and style of the book speak for the thoroughness of the work done at the Government Printing Office.

BOOKS AND PAMPHLETS RECEIVED.

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D. Fourth edition, thoroughly revised. Philadelphia: H. C. Lea. 1874. Pp. 801.

The Protection of Animals. By George T. Angell. (Read at the Annual Meeting of the Social Science Association, 1874.) Riverside Press, Cambridge. Pp. 16.

Nelaton's Method of Resuscitation from Chloroform Narcosis. By J. Marion Sims. Read at the Annual meeting of the British Medical Association.

The Hypodermic Use of Quinine: A Dangerous Experimental Medication rarely Justifiable. By Stephen Rogers, M.D. From the New York Medical Journal. Pp. 15.

PROFESSOR HEINE, of Prague, treats chronic enlargements of the prostate by injections per rectum of ten drops of tincture of iodine with twenty of water. Of eleven cases treated by this plan, good results are reported in all.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC'Y.

JUNE 8th, 1874.—*Paraplegia, with contraction, eschars, congestion and sclerosis of Spinal Cord from compression by a Tumor.*—Dr. EDDES reported the case and showed the specimen.

A negress, æt. 25, entered the City Hospital April 10. She had had a still-born child at term, and a miscarriage at four months last winter.

Since the previous June (ten months), she had been gradually losing power in legs, and for last four weeks had been unable to walk. For three months there had been pains in back and legs, which had somewhat diminished at time of entrance. Except stiffness of joints and loss of power, has felt well.

Two days before entrance had difficulty in passage of urine, which becoming complete retention on the next day, was relieved by catheter.

At the time of entrance, the legs were drawn up and rigid. She was able to extend them slowly and with some pain. Was suffering from retention of urine, which was relieved by catheter. Bowels constipated. If her legs were suddenly drawn down, a spasmodic movement in the direction of flexion resulted. This condition gradually passed into complete paralysis. The reaction of the muscles to the galvanic and to the induced current appeared to be normal.

It was difficult to determine with accuracy the condition of sensation. It appeared as if tactile sensibility in the legs were lost for some time before death, while sensibility to pain continued. She constantly reported two points of contact as one, or else answered entirely at random, although she appeared at times to feel a pain from the experiment. On one occasion, she reported sensation from the battery current, when none was passing. The above was the condition in the legs and lower part of back. There was no tenderness of spine, either to pressure or percussion.

The urine was at times voided involuntarily, as were the fæces toward the last. At other times, the catheter had to be used. The urine contained some albumen, with pus and mucus. The left side of the face was partially paralyzed, and at times affected with muscular twitchings. So far as she knew it had always been so. She gradually failed, becoming weaker, and taking but little food, and passing urine and fæces in bed. She usually lay upon her back, with the mouth open, head somewhat retracted, and much sordes on teeth. The right leg was strongly flexed, and adducted so as to be thrown over upon the left side. The movements of the hands became weak, but there was never any paralysis.

During the last fortnight, extensive sloughs formed over the sacrum and trochanters. She died May 30th. The pain was relieved at first by the galvanic current, as it had been before entrance. Iodide of potassium was ordered, but it is probable that she did not take a great deal of it.

Autopsy.—The calvaria was of great thickness. The brain (including cerebellum) weighed forty ounces. The dura mater presented

nothing abnormal before removal, but the pia mater was much congested, the vessels being enlarged and tortuous. The substance of the cord itself, especially the grey matter, was somewhat reddened.

Upon further examination of the dura mater after its removal, a flattened mass was discovered adherent to its anterior surface, and presenting the appearance of having been torn from some portion which probably remained in the spinal canal. Unfortunately this was not discovered until some hours after the removal, when a further examination of the anterior wall of the canal, where there was probably another attachment of the tumor, could not well be undertaken. Its length was about two inches, and its point of greatest thickness, where, of course, the compression of the cord was greatest, was just below the cervical enlargement, so that the tumor may be said to have occupied the lower cervical and upper dorsal regions. Laterally it did not pass beyond the anterior nerve roots on the right, and but slightly beyond on the left, where, however, its thickness was considerably greater. Its edges were not distinctly limited.

Upon examination of the nearly fresh specimen, it was found that, in the region of greatest compression, the vessels were fatty, many "granulation cells" present, and occasional masses of pigment. The myeline appeared more broken up than normal. A zone of exudation surrounded some of the vessels.

These changes, especially the fatty, were more marked in the anterior and posterior columns, less in the lateral. These always diminished in degree, in both the upward and downward direction.

Upon making sections of the hardened cord, the fatty changes, of course, ceased to be visible, owing to the process of preparation. The most obvious features in the transparent sections were the greatly enlarged and numerous vessels which were filled with blood. These were seen in all parts of the sections in the affected region, but were especially numerous in the posterior horns, of grey matter. In the neighborhood of the point of greatest compression, and especially upon one side (probably the left), the vessels were accompanied by a considerable amount of connective tissue.

The nervous tissue, especially in the anterior columns, was atrophied, the usual concentric circles of myeline, around the axis cylinders, being either absent or very small, while the axis cylinders themselves were either absent or difficult to detect from the change in their usual relations and the hypertrophy of connective tissue. The anterior portion of the lateral columns had apparently undergone a certain amount of change of the same character, and also the posterior columns. These changes extended but a short distance beyond the point of compression, the lumbar and even the middle dorsal region being free even from marked congestion.

The tumor consisted of laminae of dense connective tissue, continuous with that of the dura mater, enclosing masses of medium-sized, oval and irregular nucleated, and a few spindle-shaped, cells.

It is to be regretted that the circumstances of the autopsy prevented an examination of the anterior surface of the tumor, which might have thrown more light upon its origin.

Nothing was found in the medulla oblongata, or facial nerve, to account for the partial facial paralysis.

Partial dislocation of the left Os Innominatum.—Dr. PORTER reported the case as follows:—

A lady, 52 years of age, fell down a short flight of stairs, striking upon her left side, but causing no bruise or ecchymosis to mark the point upon which she struck. When I first saw her, she complained of great pain through the pelvis, locating it principally at the symphysis. I suspected, from the nature of the accident, that she had fracture of the neck of the femur, but, upon careful examination, the pelvis being supported (on account of her loud complaints on any motion), no fracture or dislocation of the femur could be found, the foot being readily placed in its normal position. The patient—an exceedingly intelligent one—declared herself “disjointed,” and located her severest pain at the symphysis pubis and left sacro-iliac synchondrosis. Upon examination, there was perceptible motion of the left os innominatum upon its fellow and the sacrum, and at the symphysis pubis a slight dislocation upward of the left bone. The pelvis being supported, she could perform all motions of the legs with but little pain, but without support the least movement was torture. There was no crepitus. There was but one conclusion, a partial dislocation of the left os innominatum. I stated it, and also that it was to me an unique injury.

She then told me that she had been weak there for many years; that she was the mother of ten children, and had always difficulty in walking during the last few months of her pregnancies, and for some months after, from relaxation of the pelvic ligaments, necessitating strong “binders” for months. The pregnancies had followed each other rapidly, and this fact, with the relaxation of the ligaments, explained to me the possibility of this rare accident. Strong, wide bands of adhesive plaster were applied from time to time around the pelvis; these she wore for three months, with confinement to bed for nearly that time.

She made an excellent recovery.

Wound of Heart, probably from a Knife. Dr. Goss reported the case and showed the specimen.

L. N., aged 21, was murdered on the morning of February 15, 1874. He was found by the police, who were summoned by his cries, about 1, A. M., and died in the station house about half an hour later. Besides several bruises on the body, and a number of cuts on the face, he received a mortal wound in the chest, which penetrated the heart. The weapon, with which it is supposed the wounds were inflicted, is a pocket knife having a dull blade about half an inch in width and three inches in length.

The wound in the chest was transverse in direction and situated one and one-half inches above the tip of the ensiform cartilage, and three-quarters of an inch to the right of the median line. Through the wound, which was about half an inch in length, a probe could be passed inwards, upwards and to the left, a distance of two inches. On opening the thorax, it was found that the wound penetrated the walls of the chest, between the cartilages of the sixth and seventh ribs close to the right border of the sternum, thence passed through the cellular tissue of the mediastinum, through the pericardium and, finally, entered the right ventricle of the heart, at the base of one of the columnæ carneæ of the tricuspid valve.

The wound of the heart was about one-third of an inch in length, and nearly horizontal in the normal position of the heart. All the cav-

ities of the heart were destitute of blood. The pericardium contained nearly eleven fluid ounces of blood, dark, and, for the most part, clotted. The anterior mediastinum, from the diaphragm as high as to the third rib, was infiltrated with blood. No blood was found in either pleural cavity, nor was either lung injured.

Myxo-sarcoma of the right Testicle.—DR. HOSMER, of Watertown, reported the case.

J. McN., Irish, a small, but well-proportioned, man, aged 68. His life has been a steadily industrious one, involving a good deal of hard labor. Although he has not abstained totally, he has never indulged excessively, and his general health has always been excellent.

In 1869, he first noticed an enlargement upon the right side of the scrotum. This gave him no inconvenience, but underwent a gradual increase of size. And I am satisfied, from the results of close questioning, that hydrocele formed no part of the original swelling, and that from the first the testicle itself was the seat of a disease, in the later stages of which effusion took place within the tunica vaginalis. Sometime in 1871, such changes had taken place in the condition of things, that the testicle, as such, could no longer be identified. The growth of the mass went on, receiving no attention from the patient until about two years ago, when it had attained such dimensions as to incommode him somewhat. He then sought relief in a suspensory bandage, purchased somewhere in Boston, and was advised by the vender of the same to go to the hospital, and be tapped. This advice was not heeded. He soon outgrew the suspensory, and was forced to depend upon such contrivances for mechanical support as domestic ingenuity could devise; meantime performing his usual work, and losing none of his efficiency as a laborer. And it is only within a few months that the disease has come to be a serious impediment. During the past winter and spring he has lost a very little flesh, has suffered a slight diminution of strength, has been more sensitive to cold weather, and more inclined to sit still in the house; yet he has been able to perform some labor, such as sawing wood. Early in April, there came to the scrotum on the diseased side, a sudden and considerable increase of size which affected chiefly the upper and outer portion of it. April 16, for the first time, the symptom of pain appeared in the case, and this was less an uncomfortable sensation within the scrotum, than a feeling of weight and dragging located in the inguinal and lumbar regions of the right side. About this time the patient took to his bed, and on Sunday, April 19, 1874, sent for me. I obtained from him the facts as stated above. His general condition, though a little below its usual average, was quite satisfactory. His local condition, very striking even to careless inspection, may be given in detail, as follows: There lay between his thighs the scrotum so distended that it measured, by estimate, eight inches vertically, and nearly five horizontally. The skin was thin, soft, free and elastic. There could be felt within, two distinct portions; first, an exterior layer of liquid, detected by fluctuation, confined mainly to the lower anterior and upper lateral (outside) portions, and at the latter point at least half an inch thick; secondly, a central solid mass, ovoid in shape, neither sensitive nor insensible, heavy in the hand, not perfectly uniform in its density, and presenting here and there upon its surface some small nodular irregularities. The spermatic cord was absolutely free from engorgement or

tenderness, and could be traced down to its connection with the tumor. No testicle could be found. By tapping at two different points with the aspirator, I drew away twenty ounces of yellowish serum, such as a hydrocele ordinarily yields. This reduced the swelling in size and weight, and gave complete relief to the pain which was first felt three days before. I then thrust the needle of the instrument into the upper portion of the mass where it was softest, but with a negative result.

Although unable to settle the question of diagnosis, on visiting the patient on the following day, I suggested the removal of the disease by surgical operation, and signified my readiness to do it. He received the proposition very calmly, and requested time for consideration.

April 30.—A returning effusion into the cavity of the tunica vaginalis had caused a return of pain and discomfort, and another tapping was requested. Somewhat less than a pint of bloody serum was obtained with the aspirator. The relief of pain was as marked as before.

At this time all the facts and possibilities which the case involved were plainly stated to the patient, and he was urged to decide the question of operative interference.

May 2d.—He informed me that he wished to have the diseased testicle removed.

May 4th.—The operation was done, in the presence and with the assistance of three of my professional neighbors, Drs. Richardson, Stone and Thayer. The patient was etherized, and after the preliminary use of a razor, an incision was made from the external ring to the bottom of the scrotum.

Although the size, shape and smooth exterior of the tumor rendered its manipulation a little inconvenient, its connection with the integument was easily divided, consisting as it did of a superabundance of loose cellular tissue. The spermatic cord having been cleanly dissected at its lower extremity, was seized with suitable hooks, and divided with the knife, after which the requisite ligatures were applied. On making a section of the tumor, about ten ounces of bloody fluid escaped from the tunica vaginalis. The solid portion, enveloped in two single compresses and a towel, weighed $63\frac{1}{2}$ ounces. The weight of the mass removed may be safely stated as 70 ounces.

May 11th.—One week from the operation. No untoward symptom yet. The condition of the patient is unexpectedly promising.

The specimen was shown by Dr. Fitz.—

An examination of the tumor showed no evidence of extension of the disease along the spermatic cord. The cavity of the tunica vaginalis was in part obliterated by adhesions; some, quite firm; others, easily broken down. The tunica vaginalis was very much thickened and indurated; its surface presented patches of hæmorrhagic false membrane. At various parts, the growth had extended through the tunica albuginea, in the form of flattened and rounded nodules the surfaces of which were intimately connected with the parietal layer of the tunica vaginalis.

The disease was found to extend throughout the entire testicle, no normal tissue remaining. A distinction between epididymis and testis was apparent though not sharply defined, suggested rather by differences in density, color and form. The entire mass was cut with great ease, the firmest portions being found in the epididymis. These were more or less distinctly lobulated in section, gray, somewhat

translucent and permitted the escape of a moderately viscid opaque fluid.

The body of the testis was composed of a soft basis substance, yellow and opaque, at times gray, in which were numerous apparent cavities, the largest of the size of walnuts; all contained a viscid, transparent material, in parts almost fluid, elsewhere semi-solid, varying in color from yellowish- to reddish-brown. In those spaces where the substance was the more fluid, the periphery was smoother. Other portions of the tumor were of a gray color, streaked and dotted with red lines and points, dilated and injected bloodvessels with exceedingly delicate walls. Hæmorrhages had also occurred in various parts of the tumor. The microscope showed that the more gelatinous portions were composed of a more or less homogeneous material, in which were numerous delicate fibrils forming meshes containing large round cells (mucous corpuscles) in varying numbers, some fatty degenerated. Large, spindle-shaped, homogeneous glistening bodies were found; also the so-called colloid bodies, large spheroidal masses with similar optical properties so those just referred to.

The denser viscid portions presented the fibrils, basis substance and round cells; in addition, numerous spindle and stellate cells, often anastomosing. In the firmer, opaque yellow parts, similar cells were found, all filled with fat drops; the fibres were more abundant and larger, often arranged in bundles. The firmest portions of the tumor were composed almost entirely of large, round cells, diffused throughout the mass, separated by fibres or by homogeneous substance. Everywhere in the tumor, the characteristic reaction of mucine was presented. Though the structure of the tumor indicated a myxo-sarcoma, it was evident that the myxomatous element strongly predominated, and occasionally might be regarded as a degeneration condition.

The prognosis of the case, Dr. Fitz considered as uncertain, as there have been very few cases of the nature reported. Virchow, however, speaks of one which occurred in Velpeau's practice, which did recover.

DR. WHEELER had seen a case in which the disease had recurred, where the gross appearances were identical with the specimen now before the society.

NOTES OF HOSPITAL PRACTICE; CHARITY HOSPITAL, NEW YORK.—*Mucous Patches* yield in a few days to the internal administration of one fourth of a grain of the green iodide of mercury, together with the local application of the solution of the acid nitrate of mercury. The same caustic proves very serviceable in condylomata, and is used in preference to others.

Buboes.—If these are the results of chancroids, any attempt to prevent their suppuration by pressure, with application of tincture of iodine, usually fails. When suppuration does take place, the dissection out of the gland by means of the handle of the scalpel is the best method to promote a speedy cure. The cavity is filled with balsam of Peru and oakum, in order to get the sore to heal from the bottom.

Epididymitis.—Many varieties of treatment have been had recourse to, but the one that gives the best results is the tobacco-poultice. The method of using it is to make a poultice with the tobacco-leaves and apply it to the scrotum at night. In the morning, it is found that much of the pain has disappeared. The poultice serves a double service—first, that of an ordinary poultice; and, secondly, that of a depressant and nauseant.

Phagedenic Chancreoids.—The actual cautery is used to stop the phagedenic action, and serves its purpose very well.—*New York Medical Journal*.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 24, 1874.

THE subject of quarantine has just received renewed attention at the hands of the national government. Two years ago, Congress passed a resolution appointing a commission to devise a system of quarantine, which should be adapted to keep at bay the contagious diseases liable to be imported, and which should be an improvement upon the prevailing methods. We have not as yet seen any practical results coming from this action on the part of Congress; but now we have an important circular order issued from the Treasury Department and prescribing the duties of United States officers with reference to quarantine and public health. This order directs the officers of the customs revenue, the masters and crews of revenue cutters, and the medical officers of the Marine-Hospital service, to render all needful assistance to local health boards and to quarantine officers in the execution of the health-laws of their State. Furthermore, in accordance with the national law under which these orders are promulgated, the military power may be invoked in pursuance of the same end. All this looks very formidable indeed, and we ought to feel grateful that our port-physician can command such efficient allies—that, in case of emergency, a score or more of sharp-scented customs inspectors can be called on to ferret out the unlawful contagium, that revenue-cutters may run down the cholera or the “yellow Jack,” and that the great guns of Fort Warren, if the emergency be indeed very urgent, may be brought to bear upon the case.

Accompanying the order of the Secretary of the Treasury is a circular letter of Dr. Woodworth, the Supervising Surgeon of the United States Marine-Hospital service, calling for information and suggestions from local health authorities; the design being to make such data of quarantine regulations the basis of specific action. It will be truly a most beneficent thing if from all these measures there shall come some scheme of quarantine that shall give the greatest good to the greatest number, that shall respect the rights of travellers and of importers on the one hand and the welfare of great communities on the other.

Out of the exceeding diversity of opinions which characterized the deliberations of the International Sanitary Congress just held in Vienna, a conclusion concerning quarantine was reached favoring liberality in the matter of detaining ships coming from infected ports. The sick on board such ships should be removed to quarantine hospitals, and

the ships themselves should be disinfected, while the passengers who are not sick should be allowed to go on their way after a bath and a change of clothing—such was the dictum of the Vienna convention. And while river- and land-quarantine are impracticable, while railroads and steamboats provide the freest transit for disease, probably the above regulations are all that ought to be imposed on ocean transports.

Meantime, let us indulge in a little self-complacency in this latitude. The report of the port-physician of Boston for the year just ended states that during the year not any "sickness had been found on ship-board, nor was any reported to have occurred during the voyages terminating at this port." May it be very long before Dr. Fisher finds it necessary to invoke the aid of either the War Department or the Treasury Department to help him keep imported contagious diseases well out at sea!

UNDER the heading "A sad case," several of our newspapers have given in pitiful language, from the *Philadelphia Inquirer*, the history of a criminal pardoned from the Eastern Penitentiary, and of his release. The story has been too often told to need repetition. We allude to it for the purpose of reiterating our belief that ill health is not a proper and sufficient reason for pardoning a prisoner. If a prison be not in as healthful condition as it can be made, it should be the duty of the authorities to make it so. If there be not as good medical attendance within its walls as can be had, such should be obtained. If the law provides too severe penalty for an offence, let the law be amended. But the object of punishment is for the protection of the public, not only by keeping the offender away from the public, but by its warning to deter others from committing crime. The fact that a prisoner is "intelligent," is much more a reason for punishment and seclusion than it is for pardon. We have sympathy for the parents; we pity the prisoner; but we have more sympathy for the public, and more pity for those who have suffered from the prisoner's misdeeds. Education, far from being an argument for his release, should be an argument for his longer confinement. The ignorant North Street cellar thief has not had the advantages of the swindler, who may have been born within a few rods of Boston Common; and if lenity is to be shown to either, the former should receive it. But prevention of crime being the object of the punishment, the sentence should be carried out in full, sick or well. The same effort which would be used to cut off a portion of the time of seclusion of the sick man who is guilty, should be used to obtain pardon for the sick man condemned to death for murder.

We can see no reason why the governor and council might not as

well provide for sending such to a more genial climate, where recovery of health and renewed powers of larceny might be obtained together.

After writing the above remarks, we have learned the details of a case in the state prison which comes just in time to show their justice. A man who was condemned in 1862, for an assault with intent to kill, to a long term of imprisonment, has for more than two years been feigning paralysis with great skill. We understand that some time ago a member of the legislature promised the would-be homicide to obtain his pardon if he was not well in a year, but happily could not fulfil his promise. The attending physician not being without suspicion, administered ether last week, after consultation with a well-known surgeon. The prisoner's powers of self-command were so great that he kept his legs quiet till almost complete unconsciousness was produced, but the anæsthetic conquered at last and showed that the paralysis was purely voluntary.

DR. HAMMOND is bringing the hydrophobia season to a brilliant close by suing the *Medical Record* for libel. The quarrel is a very pretty one as it stands. Dr. Shradly, the editor of the *Record*, opens his columns to Dr. Hammond, to reply to his criticisms, saying, "if I am wrong, I am perfectly willing to be set right." Dr. Hammond, however, desires to convince Dr. Shradly of his errors in a private interview, and then to have the latter retract his remarks. Neither of the antagonists will accept the terms of the other, and so the majesty of the law is to be appealed to.

We will not pursue the subject further, fearful lest Dr. Hammond might not "in mercy stay his pen," as he did in favor of the "Ishmaelite of the *Philadelphia Medical Times*, who has presumed to dabble in the matter."

Correspondence.

MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY.

MESSRS. EDITORS,—I notice, in your issue of September 3d, an inquiry as to whether the Massachusetts Charitable Eye and Ear Infirmary is intended for the poor only; also, a statement that complaint has been made because persons able and willing to pay have applied for admission.

The Infirmary is intended solely for the poor and needy. A large number of its beds are free; the occupants of the others pay the nominal board of five dollars per week. No case, however, is ever rejected because this amount is not forthcoming. No charge for treatment is ever made; those able to pay are expected to apply elsewhere.

It is needless to say that the institution is very often imposed upon by those whose means render them perfectly able to consult private practitioners.

HASKET DERBY.

Boston, Sept. 14, 1874.

Medical Miscellany.

"THE MEDICAL STUDENT" is the name of a new monthly journal to be started at Wheeling, West Virginia, on the first of the coming year.

LARGE BILL FOR DENTISTRY.—A New York dentist, named Atkinson, has recently brought a suit against the actress, Agnes Ethel, to recover a bill of \$1,025 for services in filling teeth.

BROMIDE OF CAMPHOR.—M. Bourneville finds that this compound diminishes the number of the arterial pulsations; it diminishes also the number of the respirations, and modifies the temperature. It acts as a powerful sedative, and its calming effects may be of use in certain diseases of the nervous system.—*Edinburgh Medical Journal*.

DR. STUART ELDRIDGE, an American physician connected with the medical staff of five large native hospitals on the island of Yesso, Japan, has a large number of native students attending his clinical lectures. He publishes in the Japanese language a bi-monthly illustrated medical journal, which finds numerous readers.—*Medical and Surgical Reporter*.

NOSE STRAIGHTENER.—This is the name of a new instrument, displayed at the annual meeting of the British Medical Association. It is designed to bring into proper shape a mal-formed, fractured or dislocated nasal organ, and is furnished with springs and pads, which, taking the forehead as a fixed point, may be brought to bear upon any part of the nose.

AN INDIGESTIBLE MORSEL.—At a late meeting of the Société Médicale des Hôpitaux in Paris, M. Dujardin-Beaumetz exhibited a flattened leaden bullet which had been swallowed by a child. It had remained eight days in the digestive organs, produced asphyxia at the outset, and was voided naturally without having given rise to the least symptom of lead-poisoning, after treatment consisting of the administration of purgatives and sulphuric acid lemonade.—*London Medical Record*.

ANTI-VACCINATION DEMONSTRATION.—In Gainsborough, England, George Airthorpe who was recently released from prison for refusing to have his child vaccinated, was drawn through the town by his fellow-workmen. At a meeting held afterwards in the market-place, memorials to Mr. Disraeli and Mr. Scalter-Booth, demanding the repeal of the vaccination laws, were adopted, and Airthorpe, who presided, was presented with a purse of money. The meeting was attended by between three and four thousand persons.

PURIFYING WATER.—It is not generally known that pounded alum possesses the property of purifying water. A tablespoonful of pulverized alum sprinkled into a hogshead of water (the water stirred at the time) will, after the lapse of a few hours, by precipitating to the bottom the impure particles, so purify it that it will be found to possess all the freshness and clearness of the finest spring water. A pailful containing four gallons may be purified by a single teaspoonful.—*Medical and Surgical Reporter*.

HOMŒOPATHIC SURGERY.—Recent criticisms of the Philadelphia newspapers, and especially the *Press*, as to the efficiency of the staff of the Homœopathic Hospital in that city, are the reverse of flattering. It appears that by an extraordinary order of the Mayor, accident cases have of late been carried by the police to that institution, and a death having occurred under somewhat remarkable circumstances, a coroner's inquest was held, which returned a verdict that death was due to delay in medical treatment, and that the physicians in charge were in the highest degree censurable. Many other cases of death have been reported, the details of which render it pretty evident that the results of the Mayor's order are such as might have been anticipated.

DRY GANGRENE OF THE PENIS.—A case of this rare affection is reported in the *British Medical Journal* (August 29, 1874), occurring in a man aged 34. The gangrenous process set in about a month after the contraction of a syphilitic ulcer, gradually involving the entire organ, which became cold, hard and dusky. A good line of demarcation next formed at the junction with the scrotum, and the whole penis finally became detached.

EFFORTS are making in Russia to abolish the law which obliges a physician to visit any one who may call on him. As it now stands, he who refuses to go is liable to a fine of from five to ten roubles for the first offence, of from ten to fifteen for the second, and of from fifty to one hundred for the third. Moreover, any physician so offending, who may be in the service of the government, is liable to be dismissed. The worst of it is that the law is no dead letter, but is actually enforced. It was only in 1869 that a similar law was repealed in Prussia.

LOCAL TREATMENT OF PULMONARY CAVITIES.—Dr. Mosler, of Griefswald, has, in a number of cases, and with relative success, penetrated directly from the surface through the thoracic parietes into caverns, pulmonary abscesses, and bronchial dilatations, treating them like ordinary abscesses.

One or more punctures are made with a canula of sufficient size, and a small quantity of permanganate solution injected. Dr. Mosler thinks that the pulmonary parenchyma is more tolerant than is generally supposed, and that it may be acted upon through the thoracic parietes in the same manner as any other organ to which the surgeon has access. Not only pulmonary cavities, but pulmonary inflammations may be treated by medicated injections, just as other neoplastic parenchymatous tumors are treated.—*Berliner klinische Wochenschrift*; *New York Medical Journal*.

TOBACCO AND PUBLIC HEALTH.—Dr. C. R. Drysdale appears to have enlisted under the banner of Mr. Trask, the anti-tobacco agitator, taking strong grounds against the use of tobacco, which he does not hesitate to designate as a vice. In a paper read at the annual meeting of the *British Medical Association*, he affirmed that within one week he had seen two young men affected with almost complete loss of vision, induced in one case by excessive smoking, and in the other by chewing tobacco. Among the other maladies which he conceives to be produced by *nicotiana tabacum*, may be mentioned dyspepsia, diarrhoea, piles, palpitation of the heart and functional disease of that organ, stomatitis, paralysis, and especially paralysis agitans.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and towns for the week ending September 12, 1874.

Boston, 195; Worcester, 26; Lowell, 40; Milford, 2; Chelsea, 10; Cambridge, 51; Salem, 13; Lawrence, 19; Springfield, 16; Lynn, 21; Fitchburg, 5; Newburyport, 2; Somerville, 7; Fall River, 21; Haverhill, 4; Holyoke, 12. Total, 447.

Prevalent Diseases.—Cholera infantum, 125; consumption, 60; diarrhoea and dysentery, 36; pneumonia, 11; typhoid fever, 10.

Cambridge reports five deaths, and Boston four deaths, from whooping cough; none reported elsewhere.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 19, 151. Males, 79; females, 72. Accident, 9; apoplexy, 1; inflammation of the bowels, 4; disease of the bowels, 2; bronchitis, 3; disease of the brain, 7; cystitis, 1; cholera infantum, 42; cholera morbus, 1; consumption, 18; convulsions, 3; croup, 3; debility, 3; diarrhoea, 6; dropsy, 1; dropsy of the brain, 2; drowned, 1; dysentery, 1; eczema, 1; scarlet fever, 2; typhoid fever, 4; gastritis, 1; disease of the heart, 3; hæmorrhage, 2; disease of the liver, 2; inflammation of the lungs, 2; marasmus, 7; old age, 2; paralysis, 2; premature birth, 4; phlebitis, 1; puerperal disease, 1; disease of the spine, 1; suicide, 1; teething, 2; tabes mesenterica, 1; ulcer of leg, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 92; between 5 and 20 years, 7; between 20 and 40 years, 26; between 40 and 60 years, 14; over 60 years, 12. Born in the United States, 115; Ireland, 29; other places, 7.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, OCTOBER 1, 1874.

[No. 14.]

Original Communications.

PUERPERAL INSANITY.*

By W. W. GODDING, M.D., of Taunton,

Superintendent of the Massachusetts State Lunatic Asylum.

THE vagaries of lunacy, the varying phases of mental delusion, are interesting enough as a diversion, but are of very little concern to the practitioner. That "It pleased God to form poor Ned a thing of idiot mind" hardly arrests our attention beyond the passing wonder why He made him at all; but the question, what can I do with puerperal insanity? may any hour in the day become a practical one to be decided by any one of us. Given the case; what will you do with it? Cases of puerperal mania in the great majority of instances either die within the first two or three weeks from exhaustion with typhoid symptoms, or recover somewhat rapidly, the excitement subsiding at the end of a few days or weeks, rarely continuing months. The exceptional cases neither die nor recover, but pass into chronic dementia. In the onset of the disease there are usually some slight premonitions of a wandering mind, but the nurse does not always remark them, and the explosion follows so soon that an outbreak of violence or destructiveness or obscenity may be the first intimation of what has come. You find your patient up, walking about the room, or held in bed by two or three strong women, or, it may be, she is lying still, tearing her clothes, swearing, or pouring out a stream of obscenity so foul that you wonder how in her heart of hearts such phrases ever found lodgment. Now what will you do with her? Many answer by promptly sending the case to a hospital, which I have no doubt is very often the best and only thing that can be done, though I have wondered if my considerable experience with typhoid exhaustion had any connection with this promptness. It is certainly to be gravely considered whether in the first few days after confinement the risk of removal to a hospital at any considerable distance does not more than counterbalance any possible greater benefit to be derived from hospital treatment. Consider, too, before you send to the hospital, that that is a step which once taken can never be recalled out of her life. Treat the case at home, and should it terminate fortunately, the excitement subsiding in a short time, the memory of it in the minds of friends will be of a sickness with some delirium, a little queer as women often are after confinement. Send to the hospital, and, though the recovery is rapid and satisfactory, and the woman herself has rather a pleasant recollection of her convalescence, as is generally the case when the recovery is complete, still she has been insane, and

* Read before the Bristol North District Medical Society, September 10, 1874.

this is never forgotten by her friends or her children ; henceforward there is a certain dread of what may be in the future, a skeleton in the closet, not mentioned but always there.

So, the circumstances and condition of the patient justifying, you decide to attempt the treatment at home. You want good nurses who will not gossip, and who are not afraid. The points to be gained are rest in bed, sleep, nutrition. But your patient will not stay in bed ; then make her do so. Do not wear out her strength and the patience of your nurses ; provide a strong brown linen waist, made full in the bosom, fastening behind, with the sleeves closed at the end and prolonged a yard beyond the hands, then you have something soft and strong that can be tied together behind the back ; sometimes you will not need to keep it tied ; sometimes, even when tied, she will keep struggling out of bed, and it is a constant exertion for the nurse to keep her in ; then pass sheets under the arms and lash her to the bed. Have no nonsense about the looks of the thing ; here is one of the cases where " the life is more than raiment." Remember it is a woman's existence you are trying to save, that typhoid exhaustion is waiting for you if you let her wear out her strength. Perhaps when fairly secured in bed she will go to sleep ; that is the best possible result if it comes without hypnotics ; if not, perhaps food will bring it. There is an imperative demand for a good supply of easily assimilated nourishment. The patient usually takes it irregularly, but tact on the part of the nurse will generally ensure its being taken without forced feeding. Milk I have found about as well taken as anything, which reminds me to say here, entirely out of connection, that you need have little concern about the milk in the breasts ; a broken breast is the rarest event in puerperal mania ; conservative nature closes this drain on the system at once without your interference.

But you do not get sleep with the administration of food, or from the horizontal position in bed ; what then ? You have bromide of potassium, chloral hydrate, morphia, including subcutaneous injection of the latter. I would try them in full doses in the order I have named. If they succeed, and they often will partially at least, well ; if not, do not overpower the strength by cumulative doses of narcotics, they will not generally give what you are seeking ; but darken your room, keep your nurses back, maintain the horizontal position and dare to wait. It is wonderful how long sometimes the insane will live without sleep and still recover. Watch the strength ; if that keeps up, and the tongue and mouth are not very dry, food is better than stimulants. You will not, however, send away all the brandy simply because the woman has recently been confined. Milk punch will sometimes give the sleep you are seeking. Convalescence will not necessarily follow sleep ; sometimes there is a fair amount of sleep from the start, but the excitement goes on. In most of these cases, I have considerable faith in bromide of potassium, in doses of twenty grains, three times daily. I often give it with compound tincture of ciuchona where there is lack of strength.

After you get the sleep, remember that a little time is almost always needed before much or any improvement appears ; but no improvement showing after several days, you may then fairly feel that it is better to send to the hospital. Then state to the friends that the case is likely to be of some weeks' continuance, and when decided to remove, the

sooner it is done the better. Your patient can probably travel with less risk than a week earlier, and you will have the consolation of having given the case a fair trial at home, and in many cases will, I think, have the satisfaction of seeing it recover there.

TRICHIASIS.

By DAVID PRINCE, M.D., of Jacksonville, Ill.

READING just now the article in the *JOURNAL* for June 25th, upon entropion and trichiasis, by G. Hay, M.D., of Boston, it occurs to me that something more or something different might be said.

The conditions are easily comprehended when we consider that the effects upon mucous membrane of chronic inflammation and ulceration are like the effects of severe burns which have been slow in healing.

The conjunctiva contracts as the trachomatous condition results in cicatrization. The palpebral fissure becomes shortened, and, as the inner canthus is fixed by the tendo-oculi, the outer canthus becomes drawn toward the cornea.

The palpebral cartilage, which is naturally capped to correspond with the shape of the globe, becomes still more concave, so that the margin of the cartilage has its edge turned in upon the eye. In addition to this, the ciliæ with their matrices become drawn in by the same contraction until they brush the cornea with every movement of the lids. Thus three pathological conditions have been produced :

1. Shortening of the palpebral fissure.
2. Incurvation of the cartilage, causing its ciliary margin to scrape the cornea.
3. Inversion of the eyelashes — all these conditions resulting from cicatricial contraction.

The removal of the cicatricial condition is, of course, impossible. The pathological condition of the mucous membrane is permanent.

The three malpositions must, in very bad cases, be remedied by three operations :

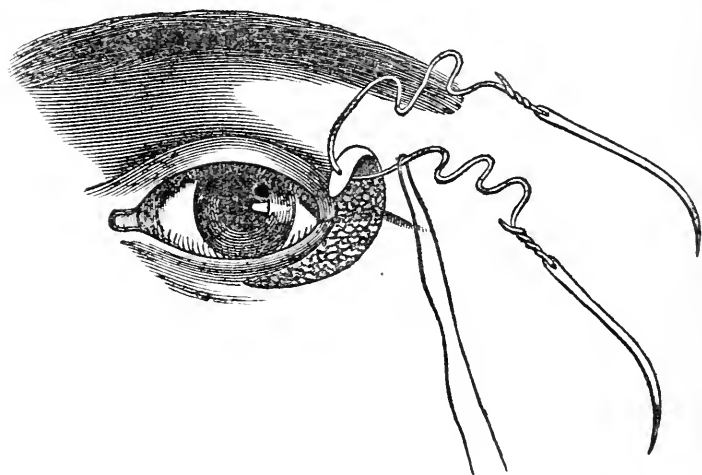
1. The operation of Des Marres, consisting in the removal of a strip of integument from the ciliary border of the lid, up to the eyelashes, or including some of them.

2. The operation practised by Dr. E. Percival Wright (of St. Stephen's Hospital, Dublin), which is a modification of the operation of Jaesch, modified by Airt, consisting of an incision through the cartilage, muscle and mucous membrane along the lower border of the peeled strip already made. This permits the lower border of the cartilage to slide up until the eyelashes turn out, and the position is maintained by stitches of fine thread.

3. The palpebral fissure is permanently lengthened, and the incurved cartilage of the upper lid lifted off from the cornea by the procedure illustrated in Fig. 1. The strip of integument removed in Des Marres's operation upon the lower lid is not cut off, but is left with a wide base beyond the outer canthus. The integument is made to have a triangular shape. This triangle of integument is everted upon the brow, and the outer canthus is incised through all the fibres of the orbicularis muscle. A free dissection is then made behind the outer portion of the upper lid until there is plenty of raw surface to receive

the flap, which is then pierced by a silver wire armed with two needles, and both needles are made to pierce the integument below the outer part of the brow, from within outward. The flap is permanently fastened in its new position by twisting the suture over a compress.

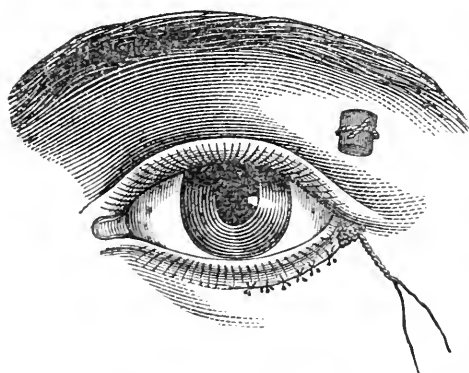
FIG. 1.



In the figure, a thread is seen over the wire, in order that the operator may have a choice of the method of removing the suture about two weeks afterward. The two ends of the sutures may be straightened out and removed in the ordinary way, or they may be cut off close to the skin, and the U-shaped stitch drawn out by the provisional thread.

The implantation of this flap of delicate skin from below the lower lid, in its new position behind the upper lid, renders the encroachment of the external canthus impossible. It also lifts the cartilage of the upper lid so that it no longer glides with its rough cicatricial surface upon the cornea.

FIG. 2.



This last is a circumstance of no small importance with reference to the clearing up of the opacity of the cornea and the future exemption from inflammation.

The lower lid very rarely requires the incision of the cartilage, because the cartilage is thinner and less often extremely incurvated. The application of sutures, as seen in Fig. 2, to close the space from which the flap has been removed, almost always suffices to turn the

cilia over, and relieve the cornea from their irritation.

If, in any case, this eversion of the lower ciliæ should not occur, the cartilage can be incised, and the margin caused to slide over as already described.

A case of extreme trichiasis has just been under observation, in which these three expedients required to be resorted to.

James William Finn, aged 26, says he has had sore eyes for three years. The ciliæ of all the lids lie flat upon the cornea. The cornea is partially opaque on both sides, more so upon the left. He can see to find his way about, and no more.

July 31st.—Operation under ether as already described.

Aug. 3d.—The greater part of the sutures of very fine cotton removed. There has been very little swelling, and the sight is already improved.

Aug. 7th.—The greatest improvement in the left eye, which was the worst one.

Aug. 10th.—The silver suture over the right eye removed by straightening it and drawing upon it as with an ordinary suture.

Aug. 12th.—The silver suture over the left eye removed by cutting off its ends close to the skin, and attaching an elastic rubber cord to the reserve ligature seen hanging upon the silver wire in Fig. 1.

Aug. 13th.—The patient was exhibited to the members of the Morgan County Medical Society.

Aug. 17th.—Went home capable of reading large print.

Very little deformity remains, and the cornea is free from any irritating contact.*

CASE OF FATAL POISONING BY AN OVERDOSE OF GELSEMINUM SEMPERVIRENS.

By J. T. BOUTELLE, M.D., Boston.

AUG. 20th, 1874.—Frank R., æt. 24. Works in a provision store. During yesterday afternoon had suffered from pains of a neuralgic character in the left shoulder, and occasional pain shooting from the fingers of the left hand upward to the shoulder. This pain became very severe at night, and his shoulder was rubbed with some "pain-killer" and a teaspoonful given internally. From this he experienced no relief, and shortly after midnight he begged for something to relieve the pain and make him sleep. There happened to be a vial of Fluid Extract of Gelseminum (Tilden's) in the house, which had been prescribed last fall for a child by the family physician, an irregular practitioner, and which he had assured them was a perfectly harmless remedy. At 1 P.M., he took a teaspoonful of this, and in about fifteen minutes repeated the dose. The pain was soon relieved and his eyes felt heavy, but in about half an hour he began to complain of choking, and soon arose struggling for breath, pushing his fingers into his throat as if trying to tear it open. He staggered, reeling from one room to another as though intoxicated, and in a short time after these symptoms came on, he threw himself upon the floor and became unconscious. This is the history of the case as I received it from his family.

* An account of the third element of the operation just described was first published in the American Journal of the Medical Sciences for October, 1866, p. 385, and subsequently in a monograph on Plastics, published by Lindsay & Blakiston, Philadelphia.

I was summoned about 3.45 A.M., and reached the house at 4 A.M. Found patient moribund, respiration gasping, three or four per minute, pulse rapid and feeble. He was totally unconscious and could not be roused; pupils dilated, not responding to light, and could be touched without producing any contraction of the lids. Muscles relaxed, lower jaw drooping. Skin moist, extremities rather cold.

As the patient was so far gone, as the dose had been swallowed three hours before and was probably all absorbed, and as there was such complete insensibility, I considered it useless to try emetics. I laid him upon his back with head upon floor, dashed cold water upon face and chest to excite respiration. Gave brandy and water in small quantities frequently, and five grains of carbonate of ammonia every five minutes. Mustard to spine and friction upon extremities. The respirations became more infrequent, and the pulse grew slower and weaker. Artificial respiration was kept up for half an hour but without avail, and he died at 4.45 A.M. No convulsions at any time.

Autopsy.—Five and a half hours after death. Body well nourished, rigor mortis marked. The blood was very fluid and dark colored, and showed no tendency to coagulate or to turn red upon exposure to the air, even after standing in a large tub for two hours. Heart, lungs, spleen, kidneys normal. Liver dark colored and contained much fluid blood. Stomach contained four ounces of light colored fluid mixed with glairy mucus. Its internal surface was deeply congested and marked by tortuous dilated vessels. Intestines normal. Brain rather pale. Sinuses not congested. The internal substance of the cerebral lobes was dotted here and there with small red points, but these were not sufficiently large or numerous to be considered of much pathological importance. No collection of fluid in ventricles.

RUPTURE OF THE BICEPS.—Assistant Surgeon Brook, of the Army, reports the following case in the *Philadelphia Medical Times*:—

A discharged soldier, who was an applicant for admission to the Asylum for disabled Volunteers, presented (I forget in which arm) a deep depression almost in the middle of the belly of the biceps, the muscle having evidently been ruptured and the torn ends remaining separated by an interval of at least an inch. There seemed to be no muscular connection between the torn ends. The man stated that while one of a party carrying a small house or sentry-box he suddenly felt something give way, and the arm became comparatively powerless. The accident occurred a considerable time before I saw him—I think over a year—and the power of flexing the fore-arm was still greatly impaired.

THE FUNCTION OF THE UVULA.—Dr. Horace Dobell writes to the *British Medical Journal* of Sept. 5, 1874:—

"Looking, to-day, into the pharynx of a patient suffering from a severe nasal catarrh, I saw the watery secretions from the back of the nose pouring down in a continuous stream from the tip of the uvula on to the dorsum of the tongue. It was evident that they were collected to this point from all the surrounding parts, and that the uvula acted as a conduit to bring them to the front of the epiglottis, whence they might be safely carried down the throat by repeated acts of deglutition; whereas, had it not been for the uvula, they would be liable to drip behind the epiglottis, and thus cause constant discomfort by getting into the larynx. This very simple but important function of the uvula has not, so far as I am aware, been noticed before, notwithstanding all that has been written about this odd little organ."

Progress in Medicine.

REPORT ON DISEASES OF THE CHEST.

By F. I. KNIGHT, M.D.

PNEUMATOMETRY.

THE following account of Waldenburg's experiments in pneumatometry is taken from Guttenaun's *Untersuchungs-Methode*, second edition, 1874. They are interesting, particularly with reference to the use of the pneumatic apparatus, which we shall take up in this present report.

The measurement of the respiratory pressure, hitherto only employed in individuals in health (Valentin, Donders, and others), has also been employed by Waldenburg as an aid in the diagnosis of diseases of the lungs. The mercurial guage used by Waldenburg consists of a glass tube, open at both ends, bent into two arms, and attached to a wooden stand, each arm being about eleven inches high; one arm (a) is covered with gauze to keep out the dust, and the other (b) is bent over horizontally, and is introduced into a long rubber tube, which ends in an extremity of horn, adapted to the mouth or nose. On both sides of the stand, corresponding to the two arms, is a millimetre scale, the zero point being in the middle of each arm, and up to these points the tube is filled with mercury. The test can be applied either through the mouth or one nostril, but evidently these must be closed tightly, except the communication through the tube. On inspiration, we see the mercury rise in b, and fall in a; on expiration, the reverse. The amount of these oscillations can be read off on the scale.

The results, during both acts of respiration in health, vary considerably, but the expiratory pressure is constantly greater, or at least not less than the inspiratory, the difference on ordinary, not forced, breathing, being usually from 5 to 30 millimetres in favor of the former. (This coincides with the results of Donders and Valentin.) The results of deep inspiration in healthy, full grown men varied from 70 to 100 millimetres; of strong expiration, from 80 to 120; in women, inspiratory pressure from 30 to 80; expiratory from 40 to 90.

Diseases of the respiratory organs affect the guage in three ways: 1. By diminution of the expiratory pressure alone, the inspiratory remaining about normal. 2. Diminution of the inspiratory pressure, the expiratory remaining about normal. 3. Diminution of both. An absolute diminution of pressure is considered to exist in those cases where it falls below the minimum given above; in strong persons, however, the mean figures are taken as a standard by which to judge pathological variations; before all, however, comes the comparison of inspiration with expiration.

The experiments of Waldenburg show a diminution of expiratory pressure in pulmonary emphysema (far below the height of the inspiratory force, which is normal or may even be increased); a diminution of the inspiratory force (only a little of the expiratory) in commencing pulmonary phthisis; in advanced phthisis the expiratory pressure is diminished also, but always in less degree than the inspiratory. The diminution of the expiratory pressure (or the expiratory insufficiency) is due to the diminution of the elasticity of the lung; the in-

spiratory insufficiency in phthisis is due to the diminished expansibility of the lung, both on account of the thickening of the parenchyma and atrophy of the inspiratory muscles.

It is worthy of notice that no fixed relation was found between the results of spirometry and pneumatometry, the pneumatometric figures being sometimes relatively high in cases of low vital capacity (as indicated by the spirometer), and *vice versa*.

Eichhorst (*Vierteljahrschrift für die Praktische Heilkunde*, 1873) obtained similar results to those of Waldenburg. The expiratory pressure was always diminished in pulmonary emphysema, chronic bronchial catarrh, bronchial asthma, in pregnancy, and in cases of tumors or exudations in the abdomen. In phthisis, there was at first inspiratory, afterwards, also, expiratory insufficiency. In pneumonia and phthisis, both inspiratory and expiratory insufficiency.

[To be continued.]

TREATMENT OF VULVAR PRURITUS.—M. Hardy frequently uses the following:—

℞. Hydrarg. chlor. corros., 1 gramme.
Aque destil., 100 "
Alcohol, q. s.

M. A spoonful in a glass of warm water. Avoid rubbing the parts during its application.

In the vulvar pruritus which so frequently accompanies pregnancy, Dagon uses the following formula:—

℞. Zinci oxidi, 4 grammes.
Sodæ boracis, 2 "
Cerati simplicis, 15 "
Ol. amygd. dulcis, q. s.
Morphiæ muriatis, 20 centigrammes. M.

Bazin prescribes the following liniment:—

℞. Liquor calcis, 30 grammes.
Glycerin, 30 "
Ol. amygd. dulcis, 60 " M.

La France Médicale; New York Medical Journal.

AN ANT-CLOUD.—On the 18th of August, Cambridge was visited by an ant-cloud, the rare phenomenon occurring about six o'clock in the evening, and causing considerable annoyance to persons in the streets, the ants falling in countless millions about the pavements, and in the gardens and college courts. There were three kinds of ants, the great majority being the small winged male. Some of the larger ones were nearly half an inch long. Correspondents writing from Putney, Lewisham, Eltham, Southall Station, Ealing, Bexley Heath, &c., report that they observed in the roads and foot paths vast quantities of winged and wingless ants on the same evening.—*Medical Press and Circular.*

THE USE OF THE CATHETER AFTER URETHROTOMY.—(*Milit. Med. Jour.*, 1873, vol. cxviii. p. 37).—In six cases upon which Dr. Kaposi performed internal urethrotomy, he was prevented from introducing the catheter after the operation, as he had intended doing, and from the results which he attained he is satisfied that it is not necessary to use catheters or bougies in these cases until several days after the operation. He thinks that by thus postponing the introduction of these instruments, the urethra escapes much irritation, and the patient much pain, and that there is no danger of the stricture which has been divided reuniting.—*Philadelphia Medical Times.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC'Y.

Aug. 10th, 1874.—*Cancerous Tumor over the Sternum.*—Dr. DRAPER reported the case and exhibited the specimen.

E. P., a female servant, aged 51, unmarried, entered the City Hospital June 9, 1874. She reported that she had been ill two weeks, a constant pain in the left hip and in the loins obliging her to give up all work. The pain sometimes extended to the left knee. The appetite was impaired and the bowels were constipated. The pain was the only symptom which attracted special attention, and to the relief of that the treatment was mainly directed. She had various sedatives and narcotics internally and anodyne applications externally. The pain was apparently that of chronic rheumatism. The left knee, which was the joint most affected, was swollen and tender. The hip on the same side was stiff and painful, but the patient's principal complaint had reference to her loins, the pain there being constant. Under iodide of potassium, in doses gradually increasing till a drachm was taken daily, the severity of the symptoms appeared to yield somewhat and the patient sat up without much discomfort. An opiate was still required to secure sleep at night.

Meanwhile the general condition of the patient improved. Her appetite was less dainty and her nutrition did not suffer; except constipation, which was readily relieved by laxatives, there was entire absence of abdominal symptoms.

July 15th, less than four weeks before the patient's death, there was first noticed a nodular swelling at the left sterno-clavicular articulation. Its size was that of an English walnut. It was painless and without tenderness. The patient invariably made light of it as the least of her troubles. Within a week, there was a manifest increase in the size of the tumor. Meanwhile, the patient began to fail. The rheumatic pains did not recur, but there was progressive prostration. Coincidentally, a cough developed, with free expectoration of frothy mucous sputa. The resonance on percussion was normal; but on auscultation there were abundant, coarse, moist, mucous râles in both lungs, though relatively more copious in the right lung.

Since the first of August, the patient made no complaint of pain, but only of prostration. The tumor over the clavicle grew rapidly but painlessly. It was firm to the touch, nodulated and immovable. There were no other nodes elsewhere on the body.

Aug. 5th, there was a very alarming attack of dyspnea, which passed away after the application of a steam bath and stimulants. The next day the voice became hoarse, intermittent and stridulous, and continued so till death.

The later symptoms were those of progressive exhaustion. The tumor grew till it appeared of the size of a large lemon. Death occurred August 9th, twelve weeks after the beginning of illness and a little more than three weeks after the manifestation of the single external sign of the extensive disease disclosed by the autopsy.

The examination discovered very general development of cancer. The growth whose course was watched during the progress of the

case was found to have invaded the manubrium of the sternum and the adjacent inner extremity of the clavicle, completely absorbing the bones in its way and appearing on the inner aspect as a well defined node, which must have pressed on the trachea. The substance of the tumor was hard, white and uniform.

On the inner surface of the right parietal bone, a nodule of the disease had penetrated the inner table and diploë, an injected point in the pericranium marking the position externally.

The right pleura was thickly strewn with nodules, varying in size from the head of a pin to a bean. The disease appeared on both surfaces of the pleura, and at the apex where the nodules were most abundant the surfaces were adherent. Two ribs on each side had a single node at about their centre; the bony tissue had been so far displaced here that the ribs bent as with an ununited fracture. The bronchial glands were enlarged and indurated. The left lung was healthy. The right lung contained many deposits of the disease around its bronchi.

The liver had about twenty of the nodules in its substance and on its surface, the largest being of the size of a filbert.

The peritoneum was everywhere invaded, the disease appearing as small, flat, disseminated, and colorless nodules thickly studding the otherwise healthy membrane. The omentum and mesentery showed the growth most abundantly. The mesenteric glands were not involved.

The stomach, intestines, kidneys, uterus and mammæ were normal; the brain and heart were likewise apparently healthy.

Dr. Draper remarked that the rapid development of the disease and the almost entire absence of symptoms pointing toward the real condition were interesting features of the case.

DR. WHEELER said this case was interesting from its great rapidity, it being the shortest in duration of any case that had ever come under his observation. He had seen a case result fatally in six months, in a boy, where the primary disease was found to be in the left kidney.

Pyelo-Nephritis.—MR. RAND, of the Chelsea Marine Hospital, reported the case and showed the specimen.

Patient entered U. S. Marine Hospital Nov. 11, 1873. *Æt.* 25. At time of entrance was quite stout. During the three weeks previous to entrance was exposed to cold and wet on board of a water-logged ship. Had pain over pubes and along the ureters. Micturition frequent, causing great pain, often followed by a few drops of blood. Also had bronchitis. No history of gonorrhœa. On November 20th, nine days after entrance, complained of pain in lumbar region. The pain was severe at times, especially towards the latter part of the disease. In February, four months after entrance, pain in left back more severe. During February, nausea and vomiting began and occurred frequently. During illness, especially towards latter part, patient had occasional chills, and soon after entrance began to lose flesh, and at time of death, June 29th, was a mere skeleton. Micturition frequent during illness. Examination of urine gave the following results: color, pale yellow; specific gravity, 1006–1010; reaction, acid; albumen, abundant; casts, never found. Pus always present; quantity variable, but always considerable.

On March 7th, five months after entrance, sediment contained pus; epithelial cells from pelvis and from kidney.

On June 26th, three days before death, epithelial cells from pelvis and kidney, containing fat drops, were found in the sediment; also, for the first time during course of the disease, a few red blood globules.

June 28th, patient very weak; has severe headache; extremities cold. On 29th, A.M., died.

Autopsy, June 30th.—Rigor mortis well marked; body, much emaciated; head, not examined. Pleuræ adherent on both sides; adhesions recent; upper lobes of lungs gave appearance on section of tubercle, but on closer inspection the appearance was found to be due to peribronchitis; other parts of lungs healthy. Heart pale, but healthy. Liver and spleen, healthy. Bladder was of normal size. Mucous membrane thickened and covered by old inflammatory product. Ureters much enlarged in diameter; mucous membrane in the same condition as that of the bladder, though somewhat discolored. Kidneys somewhat enlarged; capsules non-adherent; appearance pale. Numerous nodules of various sizes on surface, on section. Mucous membrane lining pelvis and calyces thickened and discolored and covered by old inflammatory product. Parenchyma extensively destroyed at two spots in the right and at one in the left kidney. Cortical portion covering these spots, very thin. There were numerous small abscesses throughout the parenchyma of both kidneys.

Dr. Fitz said that one interesting fact in this case was that, while the disease had evidently extended from the bladder upwards, the urine having been always acid, proved that this extension could not be due to bacteria, which had entered the bladder, working up from there into the ureters, as is claimed by Traube to be the case. This fact, also, of the acidity of the urine would account for the unusual absence of any calcareous deposits on the rough and diseased mucous membrane.

Aneurism of the Arch of the Aorta; decided Relief of Symptoms under large doses of Iodide of Potassium.—Dr. ABBOT first showed this patient to the Society on March 24th, 1874. He had entered the Massachusetts General Hospital on March 4th, having at that time a tumor larger than a hen's egg above the sternum, and behind the sterno-cleido-mastoideus muscle, which was so tender that it was with great difficulty that a cast of it was taken. All the large arteries given off from the arch, with the exception of the left radial, were so occluded that no pulsation could be felt. Dr. Knight, who examined him at this time with the laryngoscope, found evidence of paralysis of the left recurrent laryngeal nerve. From the patient's history of his case, it appeared that he had suffered from pain, especially in his shoulders, for months before the tumor appeared. He was put on fifty grain doses of the iodide of potassium, and in a few days the tumor began to diminish in size, and the pain to yield. He was again shown to the society on April 13th, when the tumor was decidedly smaller, as shown by comparison with the cast taken March 4th, and the tenderness had diminished to such an extent that quite free handling of the tumor gave no pain,

Dr. Abbot spoke of another similar case, where the improvement under a course of iodide of potassium, though not so marked, was very decided, and the patient died of some other disease. It had been claimed that in these cases the favorable action of the iodide

was due to its favoring coagulation, which has however since been denied.

Dr. Abbot's theory on the subject was that it acted by checking the inflammatory action (evidence of the existence of which we have in the pain, swelling, &c.), and favoring the absorption of the morbid products. He did not think that in these cases the mere fact of rest and quiet in a hospital could have been the cause of the improvement, as both these patients had been confined to the house for some time previous to entrance.

In neither case was there any syphilitic history or symptoms of iodism. In answer to a question, Dr. Abbot said that the tumor felt like a sac, and not like a solid body, and that the occlusion of the large arteries springing from the arch would prove that the arch itself must be the seat of the disease.

The patient, for a week from this date (April 13th), continued to improve, and left the hospital for his home. He began to grow worse, and in six weeks reëntered the hospital, suffering much pain; but the tumor had not again increased in size. He died suddenly on the 16th of June, and, on June 22d, Dr. Abbot showed the specimen to the society. It proved an aneurism of the arch, the arteries from which were occluded and in which a firm coagulum was found. Two of the upper dorsal vertebræ were eroded, as were also the sternum and clavicles. The sac had communicated with the left pleural cavity at a point where the lung had formed adhesions. The conclusion which Dr. Abbot had come to with regard to the action of the iodide, was that it simply relieved pain, and that in this case, for a time at least, it did so completely. Cases are reported where the natural calibre of the artery is restored by means of a thick coagulum, and Nélaton reports the case of a lady, where the iodide was given to relieve pain, where the drug seemed to have a marked effect on the aneurism.

Dr. FIFIELD spoke of a case of aneurism of the aorta, in a patient, with a specific history, where the iodide had a very beneficial effect. He also reported the case of a man to whom he was called one night, and found him unable to speak or swallow. Respiration was free and pulse was good. Percussion showed great tenderness over the aorta, but no murmur could be heard. The next day the patient was all right. In spite of the absence of marked symptoms, he could not help thinking that this might be a case of aneurism.

Bright's Disease, Endocarditis and Aneurism of the Coronary Artery.—Dr. CURTIS reported the case and showed the specimen.

Thos. H., æt. 18, coachman. Entered hospital February 15, 1874. Family history good; general health excellent till present illness. One year ago was kicked by a horse in the chest. Did not suffer much at the time, but has had palpitation at times since. Three weeks ago took cold; had sore throat and stiff neck, but continued to work. One week ago, when waking in the morning, found his feet and ankles swollen. This increased till it extended all over the body. No vomiting till day before entrance.

At visit, some dyspnoea; anasarca complete and excessive; auscultation of lungs in front, normal. Some dulness over left side and lower quarter left back, with distant respiration. Occasional crepitant râles at base of both lungs; cardiac dulness apparently much increased; loud murmur with first sound at base heard all over chest; abdomen

distended with fluid; urine acid, 1021; albumen one-third; casts, epithelial and granular, the former predominating; pus cells and renal epithelium.

March 6th.—Urine 1014; albumen one-third; granular and a few hyaline casts; renal epithelium.

The anasarca continued in spite of following treatment: Tincture ferri chlor.; bitart. potass.; pulv. jalapæ co.; vapor baths; tincture digitalis; oleum juniperi inhaled; leeches and wet cups to kidneys.

March 23d.—Past three days has complained of headache and is drowsy.

March 28th.—Dulness and distant respiration in both backs; most marked on left.

March 30th.—Dull and stupid at visit.

March 31st.—Patient had uræmic convulsions, epileptiform in character, this evening, and died.

Autopsy, fifteen hours after death, by Dr. Bolles. Some rigor mortis; body very œdematous. There were forty ounces of serum in the left pleural cavity and a small quantity in the right; this latter, however, was nearly obliterated by old adhesions. Lungs œdematous, the left one compressed. Heart contracted, of good color and firmness and of the usual size. Right side and mitral valve normal. Aortic valves insufficient, as shown by experiment; they were ragged and very much thickened at their borders by irregular vegetations, which very materially diminished the calibre of the vessels at this place. Two of the valves had become united by distention or disappearance of their partition. The coronary artery was enlarged, and there was seemingly an aneurismal dilatation of it. This, when cut open, was partially filled with soft fibrinous material. There were eighty ounces of clear fluid in the abdominal cavity. Liver slightly congested passively. Nothing remarkable about the intestines. Kidneys at least twice the normal size, soft, pale and ash-colored, excepting the medullary portions, which were red. Tubules almost indistinguishable. The cerebral pia mater was everywhere very much congested. Over nearly the whole right hemisphere were extravasations of blood filling the sulci and staining the whole surface so as to nearly hide the convolutions. Along the right fissure of Sylvius and over the base of the brain from the pons forward, the clots measured from one twentieth to one tenth of an inch in thickness. Brain substance good; no unusual appearance in ventricles. In the right hemisphere, lying outside of, on a level with, and parallel with, the lateral ventricle, was a large clot, one by two and a half inches in diameter, soft, mixed gray and red, and recent; the adjoining brain tissue was slightly softened. There was less hyperæmia, and there were no extravasations over the cerebellum.

Retinitis Pigmentosa.—Dr. HASKET DERBY, by means of the fixed ophthalmoscope, exhibited to the Society a case of the above-mentioned disease. The patient was a young man of 19, who could not see clearly in the day time and hardly at all towards night. Externally, the eyes were normal, but the ophthalmoscope showed extensive deposits of pigment in the retina. The course of this disease, Dr. Derby stated, is to gradually increase, and it almost always results in total blindness before the age of 50. The deposit of pigment is in the retina, but whether it comes from the retina or choroid is a disputed point. Nearly one half

of the cases of this disease are found to be the offspring of blood relations, and it is also not uncommon in idiots and in persons having supernumerary fingers and toes. As corroborative of the influence of intermarriage of blood relations in producing this and analogous trouble, Dr. Derby read the following family history from his note book:—

Mr. N., 41 years of age, of healthy parentage, himself a tall, strong man; married, eighteen years ago, to his first cousin; both of dark complexion.

1st child.—Boy, 16 years of age; dark complexion; deaf-mute; retinitis pigmentosa, with concentric limitation of field. Vision = $\frac{3}{50}$; general health excellent. An intelligent, very good natured boy.

2d child.—Boy, 14 years old; deaf-mute; high degree of amblyopia, in consequence of white atrophy of both optic nerves; peripheric patches of choroiditis atrophica; general health good; violent temper; keen intellect.

3d child.—Girl, 12 years of age; healthy child.

4th child.—Boy, 8 years old; very deaf; talks very distinctly; good natured, but rather dull; understands the father without any difficulty, but is said to be "uneasy" when spoken to by mother. Vision not to be ascertained accurately; no abnormalities to be discovered by ophthalmoscope.

5th child.—Girl, 4 years of age; healthy, with exception of clump feet.

N. B.—The mother is a perfectly healthy woman; never had any miscarriages.

"THE LONDON MONTHLY REVIEW OF DENTAL SURGERY" has a fitting and just tribute to the character, talents and professional ability of the late Dr. Thomas B. Hitchcock. Few among our young professors have attained that measure of professional superiority that is accredited by the leading organ of dental surgery in Europe to his memory. We quote the following paragraph from the Review:—

"An enthusiast in all he undertook, he has won for himself the highest esteem of the medical profession in Boston. Now that he has gone, it will indeed be hard to fill his place, for few such as he are to be found in the ranks of our profession. Honest of purpose, fearless of speech, and kindly of heart, he had won the heart and admiration of every one with whom he came in contact. Now that he has died in the prime of his life and in his full vigor, none will be more missed or more sincerely mourned. It will indeed be long before those who have lost in him a warm hearted and dear friend will cease to recall the memory of pleasant hours spent with Dr. Hitchcock."

A LOST CASE.—A physician in Vienna, Wis., who recently sued a man for services rendered in the treatment of his son for fracture of the thigh bone, lost his case. The local paper says that, after the plaintiff had proven his case and rested, counsel for the defendant moved for a nonsuit, under chapter 95, laws of 1867, which in effect provides that no person practising physic and surgery shall be allowed to collect fees for services rendered unless he is a graduate of some medical college, or is a member of the State or some county medical society. The lawyer claimed that the plaintiff's duty was to prove he was a graduate, or was a member of one of the societies mentioned, and inasmuch as he had not done so, the defendant was entitled to a nonsuit. The motion was sharply resisted by the counsel for the plaintiff, but the defence sustained the theory by authorities, and the Justice dismissed the case.—*New York Medical Record*.

Bibliographical Notices.

A Practical Treatise on the Surgical Diseases of the Genito-urinary Organs, including Syphilis. By W. H. VAN BUREN and E. L. KEYES. New York: D. Appleton & Co. 1874.

THE subject-matter of this new work comprises, in one volume of 672 pages, the surgical diseases of the genito-urinary organs and venereal diseases. The literature of each of these branches of medical science was already rich, and, by recent publications, had been made to keep pace with the latest advance of our knowledge. But, until the appearance of this treatise, we did not possess any single work which covered the whole ground of genito-urinary and venereal surgery, and it certainly seems advantageous thus to bring together and, as it were, confront diseases which, by their common locality and origin, are likely to give rise to special difficulties of diagnosis and of treatment. The treatise now before us is most admirably contrived to satisfy this want; notwithstanding the vast extent of the subject-matter, the whole ground is gone over in the most thorough and systematic manner; every detail receives attention in exact proportion to its practical importance, and this subordination of secondary to important points is strictly and evenly maintained throughout. But, notwithstanding the necessity for succinctness in a work in which so much matter had to be condensed into the small space afforded by a single volume, and in spite of the thoroughly practical nature of the treatise, full justice is done to the most modern research, and the book is fully up to the present state of medical science in all the branches of which it treats. Although all the leading and most recent authors are consulted, it cannot with any justice be considered as a mere compilation, or as wanting in originality, for the authors are themselves entitled to great authority, and continually give their readers the benefit of their own discrimination and experience. The style in which the book is written is at once concise and clear; diagnostic tables are frequently used to epitomize descriptions of disease, and by contrast to make clinical distinctions more striking; when necessary, the subject of treatment is also condensed into *summaries*, which serve to impress leading principles upon the mind of the reader and make the book easy to consult. Well-executed woodcuts, 134 in number, illustrate the matter, and fifty reported cases are incorporated into the text, serving to exemplify rare forms of disease or to corroborate the views of the authors.

Out of the vast array of details which offer themselves to the reader for consideration in so comprehensive a treatise as this, the space at our disposal will only allow us to touch upon a few points of special interest.

In connection with *stricture*, the use of tunnelled instruments is advocated for cases where catheterism is difficult, and due credit is given to Dr. Gouley for perfecting and extending the application of the principle originated by Prof. Van Buren. In the treatment of stricture, an important point is the proscriptio of the *tied-in catheter* after operations in which the wall of the urethra has been incised, whether from within or from without. Until recently, it was generally thought indispensable to tie in a catheter for twenty-four, thirty-six or forty-eight hours after every operation in which the mucous membrane was cut through or torn (internal urethrotomy, divulsion, external perineal urethrotomy). Such is still the practice of, among others, Sir H. Thompson, Maisonneuve, Guyon and Voillemier; Holt, on the other hand, has long renounced tying in a catheter, upon the supposition that, in his operation, the submucous deposit alone is split, the mucous membrane escaping laceration. First introduced by Prof. Van Buren, the practice of dispensing with the tied-in catheter has gained ground in this country; the instrument is only to be retained in a small number of cases of difficult catheterism, comprising some cases of tight stricture, when a few days of continuous dilatation precede the usual treatment by bougies, some cases of rupture of urethra by external violence,

and cases of hypertrophy of the prostate where catheterism is difficult and the surgeon is not at hand.

Gradual dilatation is recommended as the most generally useful treatment of stricture, unless complicated, resilient or traumatic; for these last cases, external perineal urethrotomy is the best treatment. To apply dilatation, conical steel sounds with a small curve are advised, preferably to soft instruments, for large strictures, superior in calibre to number 9 of the American scale (15 French); they must be used with great gentleness, at intervals of three, five, six or even seven days; for strictures of a less calibre, soft instruments are preferable. For cases other than those above enumerated, an internal operation is advisable: internal urethrotomy for all strictures situated in the pendulous portion of the urethra, divulsion for those more deeply situated. Continuous dilatation is badly tolerated and rarely useful. The limit of dilatation is subordinated to the normal size of the urethra, which is variable between numbers 16 and 20; the calibre in each individual case must be judged of by the size of the meatus, which may, however, be the seat of contraction, whether congenital or acquired. The necessity for the prolonged continuance of an after-treatment, to be carried on by the patient himself by means of bougies, is insisted upon. "In this way, in some cases, the use of instruments may be gradually abandoned; in the majority, it will have to be continued indefinitely, at intervals varying from a week to several months. In this way does the cure become gradual. The surgeon is responsible for the cure only on condition that the patient carries out this plan; or, rather, the patient is responsible for the permanence of his own cure, and this he must be made distinctly to understand." We are glad to quote this assertion by such competent authorities of the radical incurability of confirmed stricture, in opposition to the renewed pretensions to radical cure brought forward daily by the inventors of new modes of treatment and of new instruments.

Stone in the bladder is to be dealt with by lithotomy or lithotripsy, the respective indications given being those generally received. For the cutting operation, lateral lithotomy, with Blizard's probe-pointed knife, is advised for the majority of cases, when a good-sized opening is required; and it is advised that moderate incision of the prostate, not exceeding five eighths of an inch, be supplemented, if necessary, by dilatation of the opening thus made.

The subject of *lithotripsy* is well treated; sittings of three to five minutes' duration are advised, at intervals of three to five days; this seems a liberal allowance of time for each sitting, compared with the best European practice. The author of this notice has often seen Sir H. Thompson operate, and has rarely seen him exceed half a minute, except in cases of prostatic obstruction, when extraction of *débris* was performed under chloroform; during this short time, he would seize and crush three or four times. Guyon, the successor of Civiale at the Necker Hospital, never allows his lithotrite to remain in the bladder over three minutes. Still, it is perhaps better to err on the side of slowness with gentleness than to seek rapidity with a risk of violence. Our authors wisely advise that the preliminary injection of water be dispensed with, the patient being made to retain his urine before the operation.

The important subject of *syphilis* is very completely and wisely treated. Our authors adhere rigidly to the dualist doctrine, recognizing no connection between syphilis and chancre. Their views on treatment are very orthodox; mercury must be given persistently, for a year or eighteen months, alone or in conjunction with a tonic treatment, after which duration of time, the "mixed treatment," consisting in the use of mercury combined with iodide of potassium, is to be resorted to for another twelvemonth. The administration by the mouth is the mode of treatment recommended as most acceptable to the general patient, and most likely to be persevered in; inunction or fumigation are reserved for temporary use during violent outbreaks of the disease; the proto-iodide is, in the opinion of our authors, the best form in which mercury can be used in the majority of cases. When the mixed

treatment is to be applied, a solution of the biniodide of mercury, with iodide of potassium, is advised. The late and especially the gummy manifestations are amenable to treatment by suitable and *sufficient* doses of iodide of potassium, which drug, as the authors justly observe, does not seem to have any marked curative virtues, though powerful over the lesions which are symptomatic of the late forms of syphilis.

In conclusion, we will say that the chapter on "Maladies involving the Genital Function" (including impotence, spermatorrhœa, self-abuse, &c.), though short can hardly be too much praised; it is written in a most wise and liberal spirit, without any affection towards or away from cant of any kind. On this slippery ground our authors have kept their footing most admirably; the dictates of morality are clearly shown to coincide strictly with those of hygiene. The consequences of unnatural or depraved sexual feeling and excess are exhibited, and the degree and nature of the "moral" therapeusis which often succumbs to the medical adviser is made clear.

T. B. C.

On the Value of High Powers in the Diagnosis of Blood Stains. By JOSEPH G. RICHARDSON, M.D., Lecturer on Pathological Anatomy in the University of Pennsylvania, and Microscopist to the Pennsylvania Hospital. (Extracted from the *American Journal of the Medical Sciences* for July, 1874.) Pp. 9.

IN the essay before us, Dr. Richardson maintains that the red blood corpuscles of a human being can, *with certainty*, be distinguished from those of an ox, horse, or sheep, in a stain which has become thoroughly dried, and, also, that by the means of an artificial serum, the dried globules can be restored to very nearly their original size.

He uses a one-twenty-fifth inch immersion lens, which gives, with the micrometer eye-piece employed, a magnifying power of 1250 diameters. With these lenses he was enabled to distinguish between three specimens of dried blood, one of which was from a sheep, one from an ox, and the third, human blood. The average measurements of these, after having been moistened, were, in the case of the human blood, 1-3407th; of the ox, 1-4694th; and of the sheep, 1-5828th of an inch. These measurements are very nearly the same as those of the *fresh* corpuscles of man, the ox, and the sheep, which are respectively 1-3200th, 1-4267th, and 1-5300th of an inch, Dr. Richardson having in previous investigations "demonstrated a disposition to *slight* contraction in the corpuscles of blood stains which have been dried and moistened again."

His treatment of the stain is as follows:—

"Some small particles * * * were broken up into a fine dust, with a sharp knife, upon a slide, and covered with a film of thin glass. A few drops of the ordinary three-quarter of one per cent. common salt solution were then successively introduced at one margin of the cover, and removed from the opposite edge, as they penetrated thither, by a little slip of blotting paper, thus washing away the coloring matter from the tiny masses of dried clot. When these particles were nearly decolorized, a drop of aniline solution was allowed to flow in beneath the cover, and, after remaining about half a minute, was in its turn washed away, and its place supplied by a further portion of weak salt solution."

A specimen of dried blood, examined after an interval of five years, showed that no contraction had resulted from age, the average of ten measurements being 1-3425th of an inch, while the average, five years before, was 1-3474th of an inch.

E. S. W.

BOOKS AND PAMPHLETS RECEIVED.

Hypodermic Injections of Ergot in Post-partum Hæmorrhage. By P. C. Williams, M.D., of Baltimore. 1874. Pp. 4.

Transactions of the Medical Association of the State of Alabama. Twenty-seventh Session, 1874. Montgomery, Ala. Pp. 421.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 1, 1874.

WHEN Harvard adopted her present advanced system of medical education, the introductory lecture, which is still a feature everywhere else, was abandoned. We are not quite clear whether this change is an improvement or not. We have little regard for the "glittering generalities" which too often form the bulk of such addresses; but we have known some that have been followed by marked results, and we believe that those who are just about to begin the study of their future profession, who for the first time in their lives are engaged in what they know to be a serious undertaking, are the better for a few words of plain practical advice. It is true that, with the new system, such advice is less necessary than elsewhere; for the course is so laid out that the student, if he be conscientious, has but little choice of occupation; still, a good deal might be said. Although so much more is required, there is no doubt that the course is easier, as well as far more profitable, than formerly. All that is necessary is method and application. If the student give each branch its proper share of attention, he has ample time to become fairly proficient in it; but he should be warned not to give too much time to studies that are more to his taste than to others. It requires more experience and a greater breadth of knowledge than falls to the lot of the student to go far in any one direction, without giving rise to some counterbalancing deficiency in another. His object should be to obtain a good general knowledge of the various branches, and, if he do this, he will be sure, later in life, to find himself better fitted to prosecute any special line of inquiry than if he had devoted himself to it during student life, to the exclusion of others equally important. Apart from this, it is to the neglect of distasteful studies that is to be attributed the occasional failures of particularly gifted students.

It gives us great pleasure in perusing the reports of the Southern medical societies, to notice the activity and independence that the profession exhibits under the most discouraging circumstances. We have just received the Annual Report of the Alabama Medical Association, and, leaving to another time the critical analysis of the papers read, we would now call attention to some of the proceedings. The Report of the Board of Censors begins as follows:—

"If we look around us, we find at work, everywhere in our unfortunate country, the agents of disorganization and destruction. Wide-

spread and paralyzing demoralization pervades all the ranks and classes of our social and political communities. The peculiar civilization, which was slowly taking definite shape amongst us, has been broken into fragments by the tremendous revolution through which we have passed; and, whether we will or not, it devolves upon us, out of these fragments, to build up another civilization for the times in which we ourselves live, and for the future that is to come after us. Whether we build wisely and well, or whether our work shall prove to be far otherwise than laudable and beneficent, depends very much upon ourselves. It is true that many duties and obligations press upon us, and that the burden is hard to be borne. But shall we for this reason lose heart and hope, and lie down by the roadside to perish like dumb-driven cattle, in ignominious apathy and despair? Nay, verily. We are men, and we will bear ourselves like men, with manly courage and equanimity. To fold our hands passively and take things as they come—this is not our mission; but to shape events for ourselves, and to compel circumstances to pursue such course as we may believe to be wisest and best."

The Board recommends pushing a bill, which apparently had previously failed to pass the legislature, for the formation of a State Board of Health, to consist of the Medical Association, the county societies being local boards under the general one, and providing that the medical societies should appoint the health officers, and that the legal authorities should fix their salaries. The censors also urge a bill intended to discomfort irregular practitioners, and to protect the profession and the community against them. Though some points appear to us to be open to criticism, the general tendency of both these bills is excellent. The address of the president is an able plea for attention to sanitary science; he points out that it is the duty of medical men to do all in their power to diminish mortality among the young, by which a part of the potential promise of the race is cut off. We most heartily wish the Association success in its undertakings. It is by the merits of the individual State Societies that the profession of the whole country is to be judged, and it is from them, when the American Medical Association shall have fallen by its own rottenness, that we can hope to establish something creditable in its place.

SOME OBSERVATIONS ON THE LOCAL ACTION OF IPECACUANHA. By Dr. NOEL GUENEAU DE MUSSY, Physician to the Hôtel Dieu (Paris), Member of the Paris Academy of Medicine.—The root of ipecacuanha has been for several centuries reputed one of the best remedies in many cases of acute dysentery, and, indeed, such faith has been put in it that the name of *Radix anti-dysenterica* was one of its first appellations.

When ipecacuanha is given for dysentery, the method called Brazilian is the mode of administration which prevails generally among French physicians. They give it in small doses, boiled or infused in hot water.

In many cases, and more especially when dysentery is complicated with gastric symptoms, which is very commonly to be observed, I have found it useful to begin with liberal doses, so as to obtain the effect of an emetic, and it is not till later that I give it according to the Brazilian method, in the form

of a decoction or of ipecac. syrup: one teaspoonful of the latter every two or three hours.

Lately I had under my care an American gentleman who, in a severe attack of dysentery, was not relieved after six or seven days' use of decoction of the root mixed with opium, according to the prescription of a naval surgeon. Other kinds of treatment had also proved ineffectual; and though I found him very weak and exhausted by protracted dysentery, as he complained of nausea, and as his tongue was thickly furred, I prescribed ipecacuanha as an emetic, to be followed, after vomiting, by small doses of the syrup. This was attended by immediate relief, and the patient's health was soon restored.

In chronic dysentery, and even in common chronic diarrhœa, injections of decoction of ipecacuanha into the intestines are a common practice in Peru and in some other countries of South America.

I have used this remedy with success in some cases of diarrhœa unchecked by other means. My formula is thus:—Ipecac. root, ʒi.; boil for ten minutes in water, ʒv. Let it infuse for one or two hours, strain off, and make use of the decoction as an enema.

Habitually, this enema is wonderfully well tolerated. No painful sensation, no irritation of the bowel, attends these injections in the greater number of cases. They can be retained for several hours without any difficulty, and even, occasionally, with a feeling of comfort and relief.

This successful result of the local application of the decoction in enteritis, induced me to try it in some other inflammatory affections of mucous membranes.

In the beginning of the year 1872, I received into my wards a new-born female child, about eighteen days old. She looked very poorly fed, was thin and wan, and her limbs were cold and blue, though no anomaly could be detected in the central circulation. From the red, closed and swollen eyelids oozed a muco-purulent matter, which, flowing on the cheek, irritated by its contact the skin around the eyes and the naso-labial grooves.

The eyelids could only be raised with great difficulty, and, on doing so, the mucous lining would protrude outwards—scarlet-colored, swollen, velvet-like—between the streams of purulent matter which escaped from the surface of the eyeball.

The left cornea was dull, rough, deprived of its brightness and transparency. A small ulceration, of the size of a millet seed, occupied the central part of it. A light whitish cloud darkened all the surface of the right cornea.

The child's mother was weak, anæmic, but free from any venereal contamination.

I prescribed the treatment which, for more than thirty years, I have scarcely ever found to fail in purulent ophthalmia of new-born children. An injection was ordered to be made every hour with a solution of two grains of nitrate of silver in three and a half ounces of distilled water. Four times a day, a stronger solution, containing the same quantity of the nitrate to one ounce only of water, was to be instilled.

The state of the eyes greatly improved, and the acute symptoms subsided. The purulent secretion was almost entirely dried up; but the inflammatory process was not quite extinguished. The conjunctiva remained swollen, red and slightly granulated. The cornea presented the same appearance. I touched it with a crayon composed of equal proportions of nitrate of potash and nitrate of silver. But no change took place in the condition of the affected parts. The ulceration and the opacity of both corneæ remained unmodified.

After four days of useless application of this remedy, it occurred to my mind that decoction of ipecacuanha, which had proved so useful in sub-acute inflammation of the bowels, might be successful in this case.

So I prescribed, four times daily, an instillation to be made into both eyes with the following decoction:—Ipecac. root, ʒss.; water, ʒv. Boil for ten minutes, and, when cool, strain off.

The application of this topic seemed at first rather painful; the child winked, frowned and cried after each instillation. But it soon got accustomed to them, and the affected parts were speedily modified. After twelve days, the granular appearance had disappeared; the conjunctiva recovered its natural color; the right cornea was quite healthy; only slight opacity was to be observed in the left; and, after some days, the baby left the Hôtel-Dieu entirely cured.

I related this observation to my learned friend Dr. Galezowsky, who tried the remedy in the same conditions of *sub-acute* inflammation, and in several cases with success.—*The London Practitioner*.

SUCCESSFUL PRACTICE.—It cannot be said that the practice of medicine is unprofitable everywhere in California, when we read in the newspapers that Dr. Mussey, of La Porte, the other day, picked up a hundred dollars' worth of nuggets in the rocks in his diggings at Gibsonville.—*Pacific Medical and Surgical Journal*.

Correspondence.

ERYSIPELAS DURING THE PUERPERAL CONDITION.

MESSRS. EDITORS,—So strongly fixed in the minds of some of our prominent practitioners is the theory that erysipelas and puerperal fever are essentially the same disease, that it may be impossible to dispossess them of the erroneous notion. Cases have been reported, in the practice of their neighbors, of erysipelas at the time of delivery, where, as in more than one instance, even the vulva was involved without any other mischief than would be expected in ordinary attacks. With them such cases are nugatory. But sometimes instances from abroad carry more weight than similar ones nearer home; and, in this view, it may be well to note that every now and then such cases are reported in foreign periodicals; as, for instance, that of Dr. Reid (*British Medical Journal*, May 16, 1874), who says: "the erysipelas run its course in a most favorable manner, ignoring, as it were, and not interfering in the slightest degree with the mother's puerperal condition"; also a case in the practice of a friend, referred to by Dr. Reid; and another in the last number of the *British Medical Journal*, Sept. 5, 1874, reported by Dr. Stewart, who, from this experience, concludes that there is no necessary connection between erysipelas and puerperal fever.

This last case induces the foregoing remarks, made in the hope that others will report similar cases, which must be more frequent than is generally supposed.

Yours, &c.,

INQUIRER.

GRATUITOUS ADVICE.

MESSRS. EDITORS,—Giving advice uncalled for is one of the errors into which some young men fall, and is a fault which many old ones are guilty of. We have seen enough of the evil effects of such advice, made more injurious, oftentimes, because the advice is given without a sight of the patient. The history of the case is most imperfectly given by one ignorant of the most important items, and a single glance at the patient would show to a well educated man, that a very slight omission of symptoms might be the means of an absurd misunderstanding of proper treatment. Because you have seen a case, which the history of this sounds like, you have no right to think the two similar; and the physician in attendance is a much better judge than you can be. Giving advice uncalled for is well enough for an ignorant minister, who puffs any quack medicine, or for an unsexed masculo-feminine busybody, who can diagnose between canker rash and scarlet fever, but it is not the thing for an educated physician. You would not find a member

of the bar doing it in a legal case, nor will you find a gentleman doing it in our profession. A little anecdote may not be out of place in this connection.

When studying medicine, being in a physician's office, our conversation was interrupted by a woman who wanted to see Dr. ——. Well, she saw him:—

VISITOR.—“Doctor, I've been to see Mr. M., and his wife won't give him some medicine, which I brought, unless you said so.”

DOCTOR.—“That was very strange. Why not?”

V.—“She says he is under your care, and you must see the medicine, and if you say so, she'll give it.”

D.—“How do you know that the medicine will be of service?”

V.—“Why, my husband was sick in just the same way, and the doctors all gave him up, and I cured him.”

D.—“That is very strange. Are you sure the sickness was exactly like Mr. M.'s? For I fear he will not get well, and I should be glad to know what will cure him.”

V.—“Yes, exactly the same.”

D.—“Did your husband have that numbness in his left foot and hand?”

V.—“Yes.”

D.—“And that pain over his right eye?”

V.—“Yes.”

D.—“And that partial loss of consciousness in the morning?”

V.—“Yes.”

D.—“And the swelling under the jaw?”

V.—“Yes, exactly so.”

D.—“Well, it is very extraordinary that the medicine should have done so well for your husband; but, as Mr. M. has had *none* of those symptoms, I think, on the whole, it would be as well not to give it to him.”

Look out, Mr. Advice-Gratis-Giver, or you may get caught in the same way.

ATROPIA IN PHTHISICAL SWEATING.

MESSRS. EDITORS,—The reference in the JOURNAL for September 10th to the action of atropia in the sweating of phthisis and exhaustion, leads me to communicate the results which I have been able to notice after its administration. I have prescribed it in eight cases, seven of whom were inmates of the House of the Good Samaritan, and one living in Boston Highlands. Of these, six had phthisis, one tuberculosis (general), and one very marked and obstinate anæmia. The dose in five cases was one one-hundred and twentieth of a grain; in two, one sixtieth of a grain; and in one, one-sixty-fourth of a grain. In six cases, the sweating ceased within forty-eight hours, and in the other two it was very markedly diminished. The medicine was generally continued for one or two nights after the sweating had stopped. In two cases, there has been no return of the perspiration; in the others (all cases of consumption), the sweating returned after a longer or shorter interval, sometimes weeks passing without a night-sweat. In three cases, the pupils were dilated from the dose of one one-hundred and twentieth of a grain; in two cases, there was dryness of the throat, and in one patient the atropia caused pain in the abdomen to such a degree that it was omitted. The form used was, in seven cases, the granules of Bullock and Crenshaw; in one case, a solution of sulphate of atropia in equal proportions of syrup of tolu and water. The time of administration was late in the afternoon. In those cases in which its physiological action was expressed, the pupils were always affected before the throat. In no case has any injury followed its use; the undesirable symptoms above mentioned entirely disappeared within a few hours. The strength of the patients has invariably been greater after its use than before, and, with one exception, they have expressed themselves as feeling much better, sleep has been rendered much more refreshing, and the clinical aspects of the patients very much improved.

Very truly,

ALBERT N. BLODGETT.

Medical Miscellany.

IN the week ending Sept. 12th, out of 140 deaths in New York from diarrhœal diseases, 128 occurred among children under five years of age.

A WRITER in *The Journal of Applied Science* (September 1) states that castor-oil has so little effect on Chinese intestines that the Celestials use it habitually in cookery.

IT is understood that the following will be the staff of the Maine General Hospital. The Medical staff, Drs. Dana, French, Small and Thayer. Surgical staff, Drs. Tewksbury, Green, Weeks and Gordon, with Dr. Hunt as resident physician.

HYGIENE AFLOAT.—We read, in the *Lancet*, that several cases of lead-poisoning have occurred at Chatham Dockyard among workmen employed between the double bottoms of armor-plated ships. Dr. Jack, R. N., has recommended that each man employed in this kind of work shall be furnished with a relay of canvas suits to prevent the lead adhering to his clothes.

ESMARCH'S METHOD is modified by Dr. W. W. Keen, with a view to prevent the paralysis which sometimes follows the use of the elastic bandage. He asserts that the bandage and tubing are usually applied too tightly, and that the loosest application that will blanch the skin and keep it so is the best.—*Philadelphia Medical Times*.

ANOTHER DEATH BY CHLOROFORM.—Mr. Charles Linscott died on September 26th, in the office of Dr. O. P. Rice, a dentist of Boston, while under the influence of chloroform administered for the extraction of a tooth. Coroner Ainsworth has impanelled a jury, and the affair is to be thoroughly investigated. The autopsy showed no disease sufficient to account for the death.

THE PHYLLOXERA. — Notwithstanding the favorable report recently made by M. Dumas on the efficacy of the means employed for the destruction of this devastating pest of the vineyards of France, its ravages continue so alarming that the National Assembly has voted the sum of 300,000 francs as a prize for the inventor of an effectual destructive procedure.—*Medical Times and Gazette*.

ABSENCE OF THE CORPUS CALLOSUM, WITHOUT ANY INTELLECTUAL DISTURBANCE. — Dr. Malinverni, professor of pathological anatomy at Turin, gives the detailed description of the brain of a man, 40 years of age, who died of gastro-enteric affection. During life he had never exhibited any deficiency or perversion of intellect, and yet after death the corpus callosum and septum lucidum were found to be entirely absent.—*L'Union Médicale; Medical Times and Gazette*.

THERE is on exhibition in Kentucky a boy, three years old, who weighs 126 pounds, measures 37 inches around the chest, 40 inches around the waist, about 56 inches around the hips, 26 inches around the thigh, and 40 inches in height. The father of the child is of medium size, the mother rather small. The child, when born, was of ordinary size, and was six months old before he began to develop into such enormous proportions.

DAMNABLE ITERATION.—The fact that the Hospital of Vienna was opened on Monday, August 16, 1784, appears to be agitating the public mind in Vienna. A correspondent who signs himself M. has informed us of the fact; one signing himself D. has done as much for the *Richmond and Louisville Medical Journal*, and now a certain P. asserts it in the *Philadelphia Medical Times*. Queerly enough, our correspondents favor us with precisely similar statistical tables.

We propose hereafter to mind our Ps and Qs and to look out for *flams*.

PRACTICAL CREMATION.—Madame Fortmeyer, a midwife, was recently arrested in St. Louis for committing an abortion. At the investigation, it was proved that Madame Fortmeyer had a unique and original method of ridding herself of all tell-tale evidence. A favorite aphorism with her was, "*Ashes tell no tales.*"

This very pleasant and amiable person indulged in the pastime of *burning* the results of conception; and it was shown at the inquest that she had *roasted* in her stove the bodies of living, breathing infants. "Surely," says the *Missouri Clinical Record*, "this intelligent lady should be rewarded for inaugurating in this country a practical demonstration of incineration; but we are afraid—notwithstanding the efforts of humane lawyers in her behalf—that she will be rewarded quite otherwise."—*Philadelphia Medical Times*.

LOCAL POISONING BY LEAD.—Dr. A. Manouvriez having inquired into the experience of thirty workmen, who from the nature of their occupations were brought more or less into contact with lead, has come to the conclusion that possibly all the local symptoms of paralysis, change of sensibility, etc., are the result of the direct absorption of the poison through the skin. In those who were right-handed, it was always the right upper extremity that was affected; while in the left-handed, the symptoms were, for the most part, confined to the left upper extremity. A worker in white-lead, whose feet were most frequently brought into play (in the process of stamping), was first affected in these parts. Two right-handed workmen happened to be seized with paralysis in the left arms and hands, but in their case it transpired that it was the left upper extremity which had come in contact with the lead.

In view of these observations, we are justified in asserting that by applying an artificial protection to the skin of lead-workers, we may be able to afford an efficient prophylactic against lead-poisoning.—*Gazette des Hôpitaux*, May 7, 1874.

NOTES AND QUERIES.

MESSRS. EDITORS,—Is chloral hydrate an animal? and is it one of those animals upon the existence of which disease in the human being is supposed to depend? If not, what is the meaning of this paragraph from the *Boston Courier*?

"It seems that the physicians in India have come close to a perfect cure for cholera. The discovery is the hypodermic injection into the arms and legs of chloral hydrate."

Yours, CHOLERA.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and towns for the week ending September 19, 1874.

Boston, 151; Worcester, 18; Lowell, 31; Milford, 2; Cambridge, 27; Salem, 12; Lawrence, 12; Springfield, 11; Lynn, 18; Fitchburg, 6; Newburyport, 5; Somerville, 10; Fall River, 27; Haverhill, 9; Holyoke, 14. Total, 353.

Prevalent Diseases.—Cholera infantum, 90; consumption, 37; typhoid fever, 17; diarrhoea and dysentery, 13; whooping cough, 10; scarlet fever, 9.

Worcester reports five deaths from whooping cough.

CHAS. F. FOLSOM, M.D.

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 26, 173. Males, 78; females, 95. Accident, 1; apoplexy, 1; inflammation of the bowels, 3; disease of the bowels, 2; bronchitis, 2; inflammation of the brain, 3; congestion of the brain, 2; disease of the brain, 2; cancer, 4; carbuncle, 1; cholera infantum, 30; cholera morbus, 1; consumption, 30; cyanosis, 1; cystitis, 1; debility, 6; diabetes, 1; diarrhoea, 13; dropsy of the brain, 5; drowned, 1; dysentery, 2; diphtheria, 1; scarlet fever, 3; typhoid fever, 8; disease of the heart, 7; hæmorrhage, 2; jaundice, 1; disease of the kidneys, 1; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 5; marasmus, 7; neglect, 1; old age, 5; phlebitis, 1; paralysis, 2; pleurisy, 2; premature birth, 2; puerperal disease, 1; scalded, 1; disease of the stomach, 1; septicaemia, 1; tetanus, 1; ulcer of leg, 1; whooping cough, 4.

Under 5 years of age, 89; between 5 and 20 years, 8; between 20 and 40 years, 35; between 40 and 60 years, 23; over 60 years, 18. Born in the United States, 132; Ireland, 27; other places, 14.

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Original Communications.

RECORDS OF ONE HUNDRED AND FIVE CASES OF
OPERATION FOR CATARACT.*

By B. JOY JEFFRIES, A.M., M.D., Harv.

Ophthalmic Surgeon at the Massachusetts Charitable Eye and Eye Infirmary, the
Carney Hospital, and the New England Hospital for Women and Children.

THESE are records of my operations since I gave up the old flap, and employed Prof. Graefe's method of extracting cataract. My reasons for so doing may be found in this JOURNAL for Nov. 2, 1871. I do not here propose to discuss the relative value of the various methods of removing cataracts by extraction. My records, however, certainly show the adaptability of Graefe's method to the different forms of cataract, both in children and adults. The list contains seventy-two Graefe operations for cataract in adults, not congenital; one linear extraction of soft cataract in an adult; twenty-one cases of congenital cataract in children or adults operated on in various ways, and eight cases in which traumatic cataracts were removed by one method or another. Two flap extractions are also recorded here, being those done on the first eye of two patients, where I changed to Graefe's operation for the second.

I would first here quote from my previous article just referred to, in which I said: "The profession at large will not, nor can they be expected to, take any interest in such an article as this, until relative or friend is blind from cataract, and seeks by operation the restoration of sight. Then the method chosen and its prospects of success become of vital interest. But a very great and perhaps somewhat extraordinary ignorance prevails, not only among the laity, but also among professional men, as to cataract itself. Where any knowledge exists, it seems to be that cataract is not a disease, or due to a disease, but simply an opacity of the crystalline lens, and if this can be successfully removed from the eye, the patient must needs see as well with that as with the other eye when not affected. Now, unfortunately, should the ophthalmic surgeon limit his operation to pure senile cataract, he would not relieve a large number of cases that can be helped in some degree, although his record of *success* would be materially increased. Congenital, posterior polar or cataract with disease of the internal ocular membranes, and traumatic, embrace a pretty large number which we are, so to speak, forced to operate on, yet which we know will reduce the fraction in our column of vision when the cases are tabulated. For instance, a child may have congenital cataract in

* Read before the Suffolk District Medical Society, Sept. 26, 1874.

both eyes, not enough in one eye to prevent reading, but sufficient in the other to allow only the discernment of large objects or the recognition of light from darkness. If, now, an operation does not give to this eye as good vision as the other, the operator is naturally blamed, although he may have cleared away all obstruction to the entrance of the rays of light to the retina, and his operative interference not have excited damaging inflammation. The retina or recipient surface, and the optic nerve or conducting apparatus are at fault, i. e. they are not developed normally.

“Or, again, a physician recognizes cataract in one of his patients, and sends him to the specialist for operation. The ophthalmoscope shows the latter that the cataract is due to, or accompanied by, disease of the choroid, which of itself would reduce the power of vision excessively, and, moreover, that the choroidal trouble may in great measure count against operative interference. Should, now, this latter be employed, and all obstruction to the entrance of light be successfully removed, yet the surgeon gets blamed for not performing a miracle, namely, making the blind retina perceive. I will not dwell upon the fact of how utterly the specialist is in the hands of the patient he has operated on or their surroundings, or how they may readily spoil his best work, by neglect or total disregard of the directions and precautions given. These are matters the profession, at least, can well understand, and we are sure of their sympathy in them. Please let it be remembered that an eye with cataract is a diseased one, and that the operation causes a dangerous wound.”

The analysis of my operations I present, not for ophthalmic surgeons to draw arguments from in favor of one or the other operation for cataract, but in such a simple form that the profession may gather from it some better idea about cataract operations themselves, the time required for treatment, the complications liable to arise, the accidents that occur, both at the time and afterwards. I think, too, it will help to excuse us specialists for being, as no doubt we often are thought to be, namely, *fussy* about our patients. It may also show why I, for one at least, have so frequently refused to operate on patients at a distance from Boston, when they must be left under their own physician's care afterwards. I prefer the patient within reach, where a visit may be made at any time, even if it is only to relieve my own anxiety. I well know how great an advantage it is to have old persons quiet in their own home, and amidst their own surroundings. My experience, however, has taught me that if you can get an old person once started from home, he will not generally be homesick till, if the case goes favorably, such time after the operation as it is safe to let him return. I find that when there was blindness from double cataract, an old person's homesickness is often half a desire to again see once familiar faces and scenes. Much naturally depends on the success of the surgeon in his hold over these *old children*.

About the operation itself: A patient's dread of it comes, of course, only from what he gathers from his surroundings, professional or otherwise. Now, in fact, there is rarely pain after cataract operations; most generally, absolutely nothing but the discomfort of a bandage. I have *always given ether*, and have *never seen cause to withhold it*, or evil effects traceable to it. Moreover, I have seen the very worst that can happen after operation, namely, general suppurative inflammation

of the globe, run its course *without pain*. With Graefe's operation, our wound heals quickly, and the patient can soon be up and dressed, an important point with old people. About all of the old paraphernalia of preparations and precautions have been brushed away as unnecessary, at least. We now best take patients just as they are, in average health and condition. Too much is made of the formidableness of a cataract operation. I have thought that the present success of ovariectomy was not a little increased by the once almost complete dread of it being broken down. For myself, I would rather extract a cataract for a patient who had never heard of the operation for it. I make it a rule to try to persuade physicians to be present when I operate on their patients, to disseminate, if possible, a true knowledge by observation of the operation itself. I think my brother ophthalmic surgeons will agree with me that the wear and tear on us is not the operation itself and anxiety during treatment, but the mental effort required to brush away the thousand and one fears, dreads, prejudices and whims with which patients' surroundings have enveloped them. Many and many an old person is now passing the last ten or twenty years of his life in the darkness, an extra care and burden to friends and relatives, simply because these very friends and relatives take it upon themselves to do the medical man's thinking for him. The family physician can best help to disabuse the patient and those interested in him, of the many wrong ideas now prevalent about the pain from cataract operation, the danger to life from ether, the absurdity that old people can't take it, and the many wrong impressions as to the time to be passed in bed, or shut up in a darkened room, &c. Nothing dispels all these from the physician's mind quicker or more thoroughly than to come and see how we do the operation, and how we take care of our patients afterwards.

An inquiry recently made in the Boston Medical and Surgical Journal induces me to add a few plain words here. Although cataract is very properly placed in our fee table among the capital operations, yet no one in this New England community need, from poverty, remain blind on account of it. In consequence of a prevalent opinion to the contrary, amongst the laity, and even in the profession, I would here explicitly state that the Surgical Staff at the Massachusetts Charitable Eye and Ear Infirmary receive no fee or emolument of any kind whatsoever from the State, city or patients. Since it was founded by Dr. Reynolds, senior, and my father, in 1827, its doors have been freely open to all charity cases. The house patients, when able, pay board at the present rate of five dollars per week. No patients are ever refused admittance because they cannot afford to pay their board, least of all those suffering from blindness due to cataract. There are, however, no private rooms for patients desiring to pay a fee for professional services, or wishing to have more care and attendance than the other patients. Such arrangements are customary in all hospitals, but they do not yet exist in the Infirmary; hence, those who desire, or who can afford, to pay for operations must be refused admittance. Such patients can, however, obtain at the hospital to which I am attached in South Boston, the Carney, the best rooms and trained nursing, such as cannot be obtained at any price in hotel or boarding house, and on the most reasonable terms. This hospital fully meets the cases of those who desire and have the ability to pay something, and who shrink

from being treated as charity patients. The Carney is the best situated hospital as regards light, air and opportunities for ventilation. Private patients need never know they are under a hospital roof, and they soon learn from kindness and attention received that a sister of charity is not a nun. Professional services at the Carney Hospital are not confined to the staff. Any physician can have private patients there, and I do not think he or they will regret having availed themselves of the opportunity. It will therefore be seen that there really is no excuse in this New England community for those who, from carelessness or lack of means, allow dependants, friends or relatives to live on the latter years of their lives deprived of the blessing of sight, or let children grow up in darkness from congenital cataract.

Much ignorance prevails as to the time when a cataract should be extracted. It is almost the universal rule among ophthalmic surgeons not to operate on both eyes at the same time. When one eye has cataract, this should be extracted as soon as it is ready. Waiting till the other eye is affected is a bad plan, as not only is the best condition of the lens to be removed thus lost, but a patient having one good eye is not so frightened in reference to an operation on the other, and should it fail from any special cause, the surgeon has learned how to deal with the second eye and with his patient. Patients with double cataract will rarely allow the second to be removed if the first was not a success. Graefe's operation can be employed any time during the year in hot or cold weather. The patient needs no preparation but an empty stomach to take ether on.

As to congenital cataract in children: This is very often mistaken for simple near-sightedness, and the child allowed to grow up without the necessary operative interference. I have repeatedly called physicians' attention to this in the medical journals. A congenital cataract is very apt to so change as to render its removal more and more difficult with advancing years, and greatly diminish chances of success in operating, and resulting vision. Complete congenital cataract cannot be operated on too early, in order to let in the light and favor the growth and development of the eye. Improved instruments allow us now-a-days to attack and remove these forms of cataract with much greater certainty and success.

In a previous paper, I remarked that I would rather have a report as to how perfectly the pupil was cleared of cataract and its debris, than the fraction expressing the patient's vision. We always know of our unsuccessful cases before they leave our care. All others, in spite of our greatest care, are apt to go away without our having opportunity to test their power of vision, or even select their spectacles. Many patients in this list, whose vision is unrecorded, are naturally constantly appearing to have their glasses selected. Two came whilst I was writing this article. All cases which were successful are so stated in the column of recorded vision. To have vision equal to one-tenth, i. e. to read our test-types for one hundred feet, at ten feet, is considered a success. Much less vision, however, than one-tenth is a great blessing to an old person, or even a young one. Whilst I agree most fully with the feeling that every one of our cases should be most carefully tabled and vision recorded, yet I agree with Prof. Zehender, who, in reviewing the report of the 1873 meeting of the American Ophthalmological Society, remarks, finally: "The concluding that this or

that method of operating is better than any other, because it has so much or so much per cent of success, we cannot regard as perfectly fair and correct, however heretical this view of ours may seem."

Whilst I always strive to secure, at any sacrifice of time and trouble on my part, a record of resulting vision when the patient leaves my care, or subsequently, just how small the fraction is which expresses the sight gained I do not so much interest myself in. Till this article was written, I never had made up a table of my results. On going over my original notes, from which these reports are compiled, I find that of these one hundred and five cases, eight failed wholly; not from the operation, but subsequent inflammation, &c., as the "Remarks" and "Vision" column will show. One of these was from purulent ophthalmia, transferred by the fingers, the wound having healed well. Some of the other seven may hereafter be benefitted by a secondary operation, but I mark them now as lost. It is, perhaps, a little curious, but I have done but one secondary operation, and that was after one of the two flaps here recorded. There are fifteen cases where distant vision was not recorded. Some of these I know from their reading Jäger's test-type, No. 1, will be hereafter recorded amongst my most successful cases, and all will be classed in or above the one-tenth vision considered successful. Quite a number, I operated on against my will.

Many of these cases have already, through the Reports of the Infirmary, passed into the lists of cataract operations gradually collecting in the various parts of this country. As showing simply how resulting vision varies, I tabulate my cases of extraction not congenital or traumatic where I have a positive record of *distant* vision, that is, the test letters at a distance of twenty feet.

In explanation of the column of resulting vision, the letter J means Jäger's test-types, the finest being No. 1. The letters Sn. mean Snellen's types, the finest being $1\frac{1}{2}$. In the column headed functional examination, *normal* means that the eye-ball is not too soft, the pupil dilates sufficiently well, there is no apparent present disease, and the patient can say, in a darkened room, where a candle is as it is moved about, whilst the eye is still and its light thus falls on different portions of the retina.

$$V = 1 \text{ cases } 2.$$

$$V = \frac{2}{3} \text{ " } 5.$$

$$V = \frac{1}{2} \text{ " } 10.$$

$$V = \frac{1}{3} \text{ " } 3.$$

$$V = \frac{1}{4} \text{ " } 6.$$

$$V = \frac{1}{5} \text{ " } 5.$$

$$V = \frac{1}{7} \text{ " } 1.$$

$$V = \frac{1}{8} \text{ " } 2.$$

$$V = \frac{1}{10} \text{ " } 7.$$

$$V = \frac{1}{20} \text{ " } 2.$$

$$V = \frac{1}{30} \text{ " } 2.$$

The type, in which this line is set, is equal in size to number two (No. 2), Jäger. Vision one is to be able to read the above letters B U C at twenty feet. Vision one-half, F K at twenty feet. Vision one-tenth, considered a success, to read C at twenty feet.

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT.

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anaesthesia. After-treatment. Remarks.	Duration of Treatment.	Resulting Vision and date of Record.
1	70	M.	Good.	Senile. O. D.	Normal.	Flap extraction downwards, with iridectomy. Some vitreous lost, and nucleus removed with scoop. Considerable cortical remained. One year after, small iridectomy done on contracted iris and capsule torn with stop needle.	23 dys.	One year. Jäger 16 at 4", and go about alone.
2	70	M.	Good.	Senile. O. S.	Normal.	Gracfe downwards. Nucleus large and hard. Small amount of cortical left in the pupil. Patient wrote, "he never could see minute objects better than now."	18 dys.	One year. Jäger 1.
3	37	M.	Good.	O. S.	Normal.	Flap extraction upwards, with iridectomy. Cornea quite thin and iris not over strong.	26 dys.	Six months. V = 20-40. Jäger 7.
4	37	M.	Good.	O. D.	Normal.	Gracfe upwards. Normal.	14 dys.	Fourteen days. V = 20-40. Improved to 20-20.
5	46	F.	Poor.	O. S.	Normal.	Flap extraction, with iridectomy. Some vitreous. Wound closed well. Fifth day, purulent discharge. Patient a drunkard, and having leucorrhœa. Removes bandage and clothes, notwithstanding tonics and stimulants were allowed.	30 dys.	Sees a hand. Thirty days.
6	61	F.	Fair.	Caused by cataract trouble. O. D.	Fair.	Gracfe upwards. Lens removed with scoop. Some subsequent hemorrhage.	22 dys.	22 days. Counts fingers at 5". Fast clearing.
7	79	M.	Very poor.	Hard senile. O. S.	Normal.	Gracfe upwards. Normal, except slow absorption of cortical.	22 dys.	Six months. Vision = 20-100. Jäger 6.
8	29	F.	Fair.	Soft. O. S. Four weeks.	Normal.	Gracfe upwards, small cut. Patient was feeble during treatment. Vitreous found cloudy.	30 dys.	Noted only "now improving."
9	67	F.	Poor.	Senile, overripe. O. D.	Normal.	Gracfe upwards. Lens substance fluid. Irido-choroiditis tenth day. Eye lost.	36 dys.	Vision = 0.
10	80	M.	Good.	Senile, eight years. O. D.	Normal.	Gracfe upwards. Patient restless and homesick. Left, with improving vision. Eye irritable.	30 dys.	30 dys. Counts fingers.
11	50	F.	Good.	Senile. O. D.	Normal.	Gracfe upwards. Iris pushed back, and could not be grasped; yet, one month later, looked as if an iridectomy had been done.	20 dys.	Twenty days. Vision = 20-30.
12	75	F.	Fair.	Senile. O. S.	Normal.	Gracfe upwards. Cortical not well cleared.	15 dys.	Fifteen days. Vision = 20-100. Jäger 9.
13	75	F.	Good.	Senile. O. D.	Normal.	Gracfe upwards. Normal.	15 dys.	Forty-five days. V = 20-100. Jäger 7.
14	65	M.	Good.	Senile. O. D.	Normal.	Gracfe upwards. Normal.	17 dys.	Can sew.
15	65	M.	Good.	Senile. O. S.	Normal.	Gracfe upwards. Normal. Third day, bandage off and patient up and about.	7 dys.	17 dys. V = 5-20. J. 17. Seven days. Vision = 5-20.

16	83	M.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Iris receded. Some vitreous. Patient very restless; removed bandage. Wound not closed for long time. Iris in it. Good ant. chamber and a chance for future operation. Another surgeon met with similar result with the other eye.	47 dys.	Vision = 0.
17	50	M.	Very poor.	Senile. O. D.	Normal.	Graefe upwards. Normal. Patient came out of ether as usual. Third day, died in apoplexy. A drunkard, who was watched ten days to avoid liquor, which he, however, obtained. The cat healed perfectly.	20 dys.	20 days. Counts fingers at 20 ft. J. 12.
18	73	F.	Good.	Senile. O. D. 20 years.	Normal.	Graefe upwards. Large mahogany-colored lens removed. Some capsule left.	25 dys.	Vision = 0.
19	69	M.	Fair.	Senile, both fol. post. polar.	Not very good.	Graefe upwards. Large lens removed. Pain; in twelve hours, traumatic choroiditis and iritis. Pus in anterior chamber in forty-eight hours. Gradually disappeared. Operation could not be well refused.	17 dys.	Seven mos. V = 20-40. Cannot read. Sews.
20	27	F.	Good.	Soft. 2 years O. D.	Good.	Graefe upwards. Lens soft. No hard nucleus. Patient vomited ten hours.	18 dys.	Eighteen days. Vision = 1-8.
21	76	F.	Fair.	Senile, both O. D.	Normal.	Graefe upwards. Pupil well cleared. Threatened iritis, sixth day.	28 dys.	Vision = 0.
22	67	M.	Good.	Post. polar, but no signs of choroiditis now	Fair.	Graefe upwards. Some vitreous, and lens removed with scoop. Choroidal hemorrhage and subsequent suppurative of globe. After operation, patient admits he was once nearly asphyxiated in a tank. A man with him became blind, and this patient's eye was never so good afterwards.	22 dys.	22 days. V = 20-50. Pt. cannot read. Sews.
23	Same	Same	at No. 20.	2 years. Soft. O. S.	Normal.	Graefe upward. Small cut, and pupil cleared by rubbing.	21 dys.	21 days. V = 20-100. Suction 6.
24	80	F.	Good.	Senile. O. S.	Normal.	Graefe upwards.	12 dys.	5 months. V = 1-8. Jäger 18.
25	70	F.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Iritis from exposure on removal to another room, and patient went home.	19 dys.	2 1-2 months. V = 20-40. Patient cannot read.
26	60	M.	Good.	Senile and post polar. O. S.	Fair.	Graefe upwards. Considerable blood in anterior chamber, so no cortical could be removed, except with the lens. Bandage badly kept on. Two and a half months later, under ether, a roll of iris removed from centre of pupil.	23 dys.	23 days. Sees small objects, like the cutting on a finger ring.
27	57	M.	Fair.	Senile. O. D.	Normal.	Graefe upwards. Wound healed well. One week, blood in anterior chamber. With atropine and leeches, all subsided. Patient will now improve in vision rapidly.	20 dys.	Not recorded, as patient is to return for glasses. Will be good.
28	23	F.	Good.	Soft. O. D.	Normal.	Small Graefe upwards. Capsule removed with forceps, and pupil clear. No blood in anterior chamber. Next day, blood in anterior chamber, but eye quiet. Bandage hardly kept on at all.	13 dys.	2 1-2 months. V = 10-100.
29	61	M.	Good.	Senile. O. S.	Normal.	Graefe upwards. Normal. Third night, patient struck his eye and had severe pain three hours. Thirty-six hours after, pain and redness. Wound looking as if it would slough. Atropine, &c. In ten days, quiet.		

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT. (CONTINUED.)

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anaesthesia. After-treatment.	Remarks.	Duration of Treatment.	Resulting Vision and date of Record.
30	71	M.	Good.	O. D. 7 years. O. S. 1 year.	Normal.	Graefe upwards. Normal. Patient had used atropine in o. s. for five years.		21 dys.	21 days. V = 2-10. Reads Snellen 12.
31	70	F.	Good.	O. S. Sen. O. D. pos. pol. 19 yrs.	Normal.	Graefe upwards. Third to fourth day, patient struck her eye and forced open inner edge of wound, and iris adhered in it.		33 dys.	33 days. V = 20-100.
32	76	M.	Good.	O. D. Senile.	Normal.	Graefe upwards. I removed, a month previous, a stump from o. s., the result of old injury. This was irritating the other eye.		22 dys.	22 days. V = 20-50. Jäger 1.
33	80	M.	Good.	Senile. O. D.	Normal.	Graefe upwards. Did well till fourth day; then, sudden irido-choroiditis, reducing vision, which was, on third day, equal to seeing finger ring without glasses.		21 dys.	1 1-2 month. Sees fingers. Improving.
34	36	M.	Good.	Not recorded. O. D.	Normal.	Graefe upwards. Did very well till third week. Patient went out raw November day, and at once hemorrhage in anterior chamber. Great pain. One month, blood gone. Patient says he saw well latterly till time of pain.		56 dys.	Vision = 0.
35	40	M.	Good.	Senile. O. S.	Normal.	Graefe upwards. Normal.		29 dys.	1 year. V = 20-30. Snellen 1 1-2.
36	65	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Normal.		27 dys.	27 days. V = 20-30. Snellen 1 1-2.
37	79	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Normal.		21 dys.	21 days. V = 10-100. Snellen 1 1-2.
38	63	M.	Good.	Senile. O. D.	Normal.	Graefe upwards. Iris cut with knife. It folded in, and was grasped with forceps. Wound healed a little slowly.		30 dys.	30 days. V = 10-40. Snellen 1 1-2.
39	80	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Iris cut with knife. It folded in, and was grasped with forceps. Wound healed a little slowly.		22 dys.	22 days. V = 20-40. Snellen 3. 2 years, ditto.
40	62	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Cut was small.		22 dys.	22 days. V = 20-40.
41	43	F.	Good.	Doubtful. Hard blow on temple 2 yrs. ago. Soft?	Not good.	Graefe upwards. Some subsequent pain, but did well.		16 dys.	16 days. V = 20-40. Snellen 1 1-2.
42	71	M.	Fair.	Senile. O. D. Over-ripe 4 yrs	Normal.	Graefe upwards. One month, tag of iris in outer edge of wound.		18 dys.	18 days. V = 1-7 and Snellen 1 1-2.
43	64	F.	Fair.	Senile, some years.	Fair.	Graefe upwards. Lens came out in two pieces. Patient rather feeble. Before operation, posterior surface of lens quite white and rest of lens pretty clear.		20 dys.	V = 10-100.
44	62	F.	Fair.	Senile. O. S. both.	Normal.	Graefe upwards. Normal. Patient went home, and bought concave glasses. With convex guessed at, patient has vision to read with.		8 dys.	1 1-2 years. Reads and threads fine needle.

45	72	F.	Fair.	Senile. O. D. both.	Normal.	Graefe upwards. Did well till ninth day. Some iritis and acute granulations. Treated some two months.	20 dys.	2 months. V = 15-60. Snellen 4 1-2.
46	50	F.	Good.	Senile. O. S. both.	Normal.	Graefe upwards. Normal.	21 dys.	21 days. V = 20-20. Snellen 1 1-2.
47	60	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. A little vitreous. Iris became involved in wound, causing slow healing.	32 dys.	32 days. V = 10-100. Snellen 3 1-2.
48	50	M.	Poor.	Senile. O. D. both.	Poor.	Graefe upwards. A very deep-set eye, rendering a perfect Graefe impossible. Patient thought to be crazy by his family. Nervous, irritable; removed bandage. Traumatic iritis, which yielded to treatment, and in one month vision was 10-100. He after this got granular lids and double iritis. The lymph in pupil organized, and the patient has not been since mentally fit for any further operation.	30 dys.	30 days. V = 10-100.
49	62	F.	Fair.	Senile. O. D. both.	Normal.	Graefe upwards. Normal.	19 dys.	19 days. V = 20-100. Snellen 2.
50	57	M.	Fair.	Senile. O. D. 2-3 years.	Normal.	Graefe upwards. Not a full Graefe ent.	21 dys.	21 days. V = 20-100. Snellen 2 1-2.
51	50	F.	Fair.	Senile. O. S. both. Operat'n twice refused.	Fair.	Graefe upwards. Corneal left, rather than risk vitreous. Normal till fourteenth day, when patient used very hot water on eye and had blood in anterior chamber. Absorbed in a few days.	31 dys.	31 days. V = 20-40. Snellen 1 1-2.
52	50	F.	Good.	Senile. O. D.	Normal.	Graefe upwards. Normal.	20 dys.	20 days. V = 20-30. Snellen 1 1-2.
53	59	M.	Fair.	Senile. Both O.S. was struck 2 years ago.	Normal.	Graefe upwards. Vitreous, as was expected, came, and lens removed with scoop. A little tag of iris remained in end of wound after healing.	23 dys.	23 days. V = 20-80. Snellen 4 1-2.
54	63	F.	Fair.	Same pt. as 49.	Normal.	Graefe upwards. Normal.	22 dys.	22 days. V = 20-40.
55	58	M.	Fair.	Senile. O. S.	Normal.	Graefe upwards. A tag of iris fastened in end of wound whilst healing.	20 dys.	20 days. V = 20-80. Snellen 1 1-2.
56	49	M.	Fair.	Senile. O. D.	Normal.	Graefe upwards. Did well till fourth day. Then, against orders, bandage removed. Some pain, and blood in anterior chamber. Fifteenth day, violent pain, "as if eye struck with fist." Treatment relieved all.	26 dys.	26 days. V = 10-30. Patient cannot read.
57	63	F.	Fair.	Senile. O. D. 15 years.	Fair.	Graefe upwards. Lens substance like pus. This eye, after operation, showed the same alteration at the centre as the other does, operated on twenty-three years ago.	22 dys.	22 days. V = 10-100.
58	46	M.	Good.	O. D. 3 years. Soft.	Normal.	Graefe upwards. Lens substance harder than supposed; still no nucleus. There has been, probably, old choroiditis, or at least trouble with vitreous, as there were cobweb films in pupil not due to lens, and before operation patient had muscae volitantes. The other eye, operated on sixteen days after, did the same or better. Both are clearing.	14 dys.	Not noted as different from other eye.
59	46	M.	Good.	O. S. 1 yr.	Normal.		18 dys.	18 days. V = 5-100.

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT. (CONTINUED.)

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anesthesia. Remarks. After-treatment.	Duration of Treatment.	Resulting Vision and date of Record.
60	71	M.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Patient moving, and considerable blood; yet the operation passed off well. General inflammation came on in forty-eight hours, but no pain. Ran the usual course. Pus profuse. Thought no contagion could be traced, a case of gonorrhoeal ophthalmia was in the adjacent room.	50 dys.	50 days. V = 0.
61	60	M.	Good.	Senile. O. D. 1½ year and post, polar.	Normal.	Graefe upwards. Normal. Bandage off third day.	17 dys.	17 days. V = 20-50. Snellen 1 1-2.
62	61	M.	Good.	Post, polar and senile. O. S. Senile. O. D. 5 yrs. O. S.	Normal.	Graefe upwards. Normal.	14 dys.	14 days. V = 10-30. Snellen 1 1-2.
63	84	M.	Good.	Senile. O. S. 2 years.	Normal.	Graefe upwards. Patient very restless. Fourth day, bandage off.	25 dys.	4 1-2 mos. V = 20-40. Snellen 1 1-2.
64	69	M.	Fair.	Senile, not perfect. O. D. 3 years.	Normal.	Graefe upwards. Cataract very sticky. Patient has been a hard drinker. Considerable cortical left, which was absorbed but slowly, taxing the eye. But quiet in two months.	30 dys.	5 months. V = 10-100. Jäger 8.
65	81	M.	Good.	Senile. Hard. 6 yrs. O. S.	Normal.	Graefe upwards. Cornea very small. Wound small and enlarged. Lens removed with difficulty. Fifth day, bandage off, and patient tells fingers. Cortical absorbing slowly.	23 dys.	23 days. Counts fingers. Goes about alone.
66	58	F.	Fair.	Hard. 6 yrs. O. D.	Normal.	Graefe upwards. Patient up third day, and did well, notwithstanding weakening diarrhoea.	14 dys.	14 days. V = 20-50. Snellen 2.
67	74	F.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Cut small, but lens came easy. Did well till seventh or eighth day; then, slight irritation and patient homesick. Taken home. Vision is very good, but only could be hastily tested, as recorded.	18 dys.	18 days. J. 8-9.
68	52	M.	Good.	6 mos. O. D.	Normal.	Graefe upwards. Persistent iritis. Pain after operation for three hours; relieved by loosening bandage. Treated as out-patient.	30 dys.	Not yet taken.
69	80	M.	Good.	Senile. O. S. both.	Normal.	Graefe upwards. Lens nucleus removed with scoop after many efforts. Wound healed perfectly. Patient had senile delirium, tearing off bandage and rushing out doors. After operation, family said he had so acted before. He was a most inveterate smoker and chewer. The cortical was fluid and lens nucleus sank. No tritis followed.	30 dys.	Vision = 0.
70	70	M.	Good.	Senile. O. D. Not perfect.	Normal.	Graefe upwards. Patient sneezed violently and continuously under ether. No vitreous lost. Wound healed well. Pupil perfectly clear, and ophthalmoscope showed old choroiditis, a history of which and iritis was then got.	25 dys.	25 days. V = sees fingers.

17 dys. 3 years. V = 20-20.
21 dys. Jager 5. V = 15-30.
17 dys. 2 months. V = 20-64.
14 dys. Jager 3. V = 20-30.
Jager 1.

Graefe upwards. Normal.
Graefe upwards. Very tedious recovery from bronchitis.
Graefe upwards. Patient weak and with cough, but improved.
Graefe upwards. Normal.

71 M. Good. Senile. O. D. Normal.
72 F. Fair. Senile. O. D. Normal.
73 F. Fair. Senile. Over-ripe. O. D. Normal.
74 M. Good. Senile, 1 yr. O. D. Normal.

CONGENITAL CATARACTS.

75	50	M.	Good.	Congenital. O. S. Largely increased, and cretac. spots on capsule.	Normal.	Graefe upwards. Small ent. Sticky lens removed with forceps and curette. Normal.	18 dys.	18 days. Snellen 1 1-2. V = 20-50.
76	9	M.	Good.	Congenital. lenticular and capsular.	Good.	Discussion twice. O. D.	16 dys. 7 dys.	Patient not seen, to record vision.
77	9	M.	Good.	O. D. O. S.	Good.	" once. O. S.	22 dys.	22 dys. V = Jager 14. Fingers at 7.
78	24	F.	Good.	Congenital. Cannot fix.	Fair.	O. D. Iridectomy. Six months later, linear incision and forceps used. Some vitreous.	18 dys.	Counts fingers. Goes about.
79	24	F.	Good.	Ditto.	Fair.	O. S. Iridectomy. Five months later, linear incision, and, with forceps, capsule and cretaceous material removed. Both pupils clear, and ophthalmoscope shows very irregular papillae.	28 dys.	5 months. V = 20-50. Snellen 1.
80	10	F.	Good.	Congenital. central.	Fair.	O. D. Punctured four times. Subsequent iridectomy and extraction with forceps six years after, mother refusing before.	21 dys.	5 months. V = 20-40. Snellen 1.
81	10	F.	Good.	Spreading. Ditto.	Fair.	O. S. Punctured four times, and, six years after, also iridectomy and removal of capsule and cretaceous mass by forceps.	11 dys. 11 dys.	Not yet taken.
82	7	F.	Good.	Congenital.	Good.	O. D. Discussion. Again in five months. Again in six months, and will need future extraction of capsule.	29 dys.	Counts fingers now.
83	7	F.	Good.	O. S.	Normal.	Ditto. O. S. With Graefe's knife iridectomy upwards. Lens and capsule removed with scoop and forceps. Third day, traumatic iritis. Finally subsided, and patient allowed to go home to return for further operation.	11 dys. 11 dys.	4 yrs. V = 20-100, J. 2. Ditto. Hm. = 1-30.
84	29	M.	Fair.	Congenital. Post. pol.	Normal.	O. D. Iridectomy downwards. Patient very violent after ether.	10 dys.	30 days. J. 16 and V = 1-10.
85	18	M.	Good.	Congenital. Ditto.	Normal.	O. S.	4 dys.	6 mos. V = 20-50. Sn. 3.
86	18	M.	Good.	Congenital.	Normal.	O. D. Iridectomy downwards. Patient very violent after ether.		
87	33	F.	Good.	Congenital.	Normal.	Ditto.		
88	14	M.	Good.	Congenital.	Good.	O. D. Graefe's operation, small, upwards. Whole mass removed with forceps. Patient had been operated on other eye, and could, with it, just see to go about.		
				Cong.; doubt.		O. D. Discussion.		

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT. (CONTINUED.)

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anaesthesia. After treatment. Remarks.	Duration of Treatment.	Resulting vision and date of Record.
89	19	F.	Good.	Congenital.	Good.	O. S. Dissection. Repeated five months later. After second operation, a piece of lens laid against iris, and caused nausea and vomiting for some days.		1 year. Vision noted. Still improving.
90	25	F.	Fair.	Congenital, large central.	Fair.	O. S. Iridectomy and capsule opened. Cortical left for fear of vitreous.	16 dys.	6 mos. V=20-100. J. 6.
91	25	F.	Fair.	Ditto.	Fair.	O. D. Small Graefe upwards. Pupil cleared with forceps.	14 dys.	10 mos. V=20-100. J. 6.
92	51	M.	Good.	Congenital, central and slight opacity	Good.	O. D. Iridectomy downwards. Patient writes, "he is much satisfied and reads all day." The gradual closure of the pupils with age rendered iridectomy necessary.	12 dys.	Jager 14. 12 days.
93	51	M.	Good.	Opacities, nucleous.	Good.	O. S. Ditto.	12 dys.	Jager 1.
94	12	F.	Good.	Congenital, both O. D. Small central O. S. complete.	Good.	O. S. Small Graefe upwards, and forceps used for capsule. Pupil cleared and papilla seen; not natural.	14 dys.	Vision greatly improved.
95	9 m.	F.	Fair.	Congenital and		O. D. Dissection twice, and, afterwards, hook with broad needle. Capsule tough. Cornea thin. Operations very difficult. No irritation.		Fundus O. D. seen.
96	9 m.	F.	Fair.	nystagmus.	Fair.	O. S. Dissection twice, and hook the same as O. D.		O. S. not so well.

SOFT CATARACT IN ADULT.

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anaesthesia. After treatment. Remarks.	Duration of Treatment.	Resulting vision and date of Record.
97	21	F.	Poor.	Soft, O. S. O. D. 2-3-stump from some previous operation.	Good.	O. S. Linear incision and iridectomy. Capsule pulled and broken with cystitome. Little vitreous. Case did well.	13 dys.	1 month. V = 10-30. Snellen 3 1-2.

TRAUMATIC CATARACT.

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anaesthesia. After treatment. Remarks.	Duration of Treatment.	Resulting vision and date of Record.
98	29	M.	Good.	Traumatic. O. S.	Good.	O. S. Iridectomy upwards, and cataract removed with curette. Capsule to be broken through.	17 dys.	17 days. V = 10-20.
99	57	M.	Good.	Traumatic? Glaucoma.	Normal.	Small Graefe upwards. Done to relieve great pain. Cataract soft, but good-sized nucleus. Iris fifth night, from an accidental blow. Persistent, but yielded to treatment.	23 dys.	4 months. V = 20-80. Snellen 1 1-2.

100	18	M.	Good.	Traumatic posterior syn- chia.	Good.	O. S. With a large knife an iridectomy made, including the poste- rior synchia; through this, with forceps and curette, lens evacuated. Taken sick with lung trouble and sent to Mass. General Hospital.	11 dys.	Patient saw small ob- jects, and will have good vision.
101	14	M.	Good.	Traumatic. Piece of cap.	Good.	O. S. For pain, broken lens removed by lance knife. Capsule fastened in corneal wound. No history till after operation. Patient did well, and saw fingers in one month. Afterwards returned with pain, and eye removed with piece of cap in it.	5 dys.	One month, counts fin- gers. Globe removed af- terwards.
102	42	M.	Good.	Traumatic.	Fair.	O. S. Iridectomy downwards and outwards, and lens evacuated. Considerable cortical left. There were anterior and posterior syn- chia.	14 dys.	Five days. Sees stono in finger-ring.
103	14	M.	Good.	Traumatic. 2 years. O.D.	Good.	Small Graefe upwards.	14 dys.	14 days. V = 20-50.
104	25	M.	Good.	Traumatic. 2 years.	Good.	O. D. Small Graefe upwards. Vitreous fluid, and flowed at once. Through this, capsule and sticky lens removed. Did well till fifth day. Patient struck eye in sleep. Bleeding, iritis, &c., but finally did very well.	19 dys.	2 1-2 months. Vision = 20-40.
105	27	M.	Good.	Traumatic. 2 years.	Good.	O. S. Small Graefe upwards. Enlarged. Lens substance absorb- ing at end of twenty-five days.	25 dys.	Record says good vis- ion.

MALIGNANT PUSTULE.—Dr. Max. Bartels reports a case (*Langenbeck's Archiv*, 16 Bd. 2 Heft). of this affection occurring in a girl 14 years of age, the pustule being seated upon the right shoulder. The treatment consisted of free incisions and applications of fuming nitric acid. The patient made a good recovery. She stated that three similar cases had occurred within a fortnight among her acquaintances, in all of whom the pustules appeared upon the face. With one exception, all these persons were employed in picking horsehair, great quantities of which they were obliged to have about their house. Recently, this hair was noticed to be more dusty than usual. The brother of the patient, who had also contracted the disease, had not worked upon the hair, but had, nevertheless, spent a good deal of time in the room where the hair was being picked.

[When malignant pustule has prevailed in the hair factory at Walpole, in this State, it has been noticed in several instances that the hair was at that time matted together with crusts, scales and other morbid substances, that had apparently proceeded from diseased animals.—REPORTER.]

FATAL HÆMORRHAGE FROM THE EAR.—At a recent meeting of the Buda-Pest Surgical Society, Dr. Böke related the particulars of two fatal cases of hæmorrhage from the ears, and took occasion to oppose the tying of the carotid artery, when in such cases the hæmorrhage is the result of caries.

The first case was that of a sailor, 22 years old, who died after experiencing for fourteen days severe hæmorrhage, accompanied by vomiting. The autopsy revealed extensive necrosis with loss of substance in the *tegumentum tympani*, the anterior and posterior wall of the *tympanum* and also of the *canalis facialis*. The source of the hæmorrhage was found to be the *bulbus vena jugularis*.

In the second instance, that of a sailor, aged 43, there was found, at the autopsy, caries of the *tegumentum tympani* and a communication between the *sinus petrosus inferior* and the cavity of the tympanum.—*Centralblatt für Chirurgie*, Sept. 19, 1874.

Progress in Medicine.

REPORT ON DISEASES OF THE CHEST.

By F. I. KNIGHT, M.D.

(Concluded from page 324.)

INHALATION OF COMPRESSED AND RAREFIED AIR. TRANSPORTABLE PNEUMATIC APPARATUS OF WALDENBURG.

SINCE the communication of M. Tabarie to the *Académie des Sciences* on this subject, in 1832, compressed air has been used to a limited extent in the treatment of affections of the respiratory organs.

Tabarie's apparatus consisted of a wrought-iron, spherical chamber, capable of accommodating from one to a dozen patients; air, under a pressure of from one-half to two-thirds atmosphere, was forced into the chamber by a pump worked by steam. An arrangement attached to the apparatus afforded egress to the air expired by the patients. Each sitting lasted two hours, the requisite pressure was produced gradually during the first half hour, and after being continued for an hour, was gradually withdrawn during the last half hour (Cohen). Gustav Lange improved and simplified this apparatus, making it cylindrical in form, and so arranged that rarefied, as well as compressed air could be used (Waldenburg). Hanke (1870), in Vienna, employed compressed and rarefied air locally in the treatment of affections of the respiratory organs. In Hanke's apparatus, be it understood, only the respiratory organs, and not the whole body (as in the cabinet), were subjected to the change in the presence of the air.

Waldenburg has recently attracted considerable attention to this method of treatment by inventing a more suitable apparatus, and by publishing some excellent results of treatment. (*Berliner Klinische Wochenschrift*, nos. 39, 40, 46 and 47, 1873.)

In the *British Medical Journal* (April 11, 1874), Waldenburg himself gives a *resumé* of the subject. He says that pneumatometry has shown how important it is to study inspiration and expiration separately. It appears that in one class of diseases the inspiratory power may be intact, or even increased, while expiration alone is interfered with. This condition is seen, principally, in emphysema. In another class, as phthisis in the first stage, only the inspiratory power is diminished, while the expiration is quite or nearly normal. The idea naturally suggests itself that it could be of importance for therapeutics to operate upon inspiration and expiration separately. Waldenburg at first tried Hanke's apparatus, which is dependent on a pump arrangement, but found it insufficient, as it worked with a very limited and continually varying power. He therefore constructed another apparatus, which consists of two cylinders, each 39 inches high, the inner one being $10\frac{1}{2}$ inches in diameter, the outer one 11.8 inches. The inner cylinder is closed at the top, and cords fastened to the top of it pass over wheels attached to a frame-work above. The apparatus is filled with water to the height of about 7.8 inches. Weights being attached to the ends of the cords draw up the cylinder, and thus rarefy the air in it. The pressure of the atmosphere upon the cylinder amounts to about 1,300 English pounds. According to the weight attached, the

air is rarefied in a ratio which may be exactly calculated; the weight of the inner cylinder, which amounts to about ten pounds, being allowed. When, for instance, thirty pounds are attached, this gives a net weight of twenty pounds, which corresponds to about one-sixtieth of the atmospheric pressure (12 millimetres on the mercurial guage attached to the apparatus). From the inner cylinder, a tube proceeds to a mask, which may be firmly adjusted upon the face, and which is provided with a cock in such a manner that either the air in the cylinder is shut off, and communication only with the outside air exists, or, *vice versâ*, the connection with the latter is broken, and the mask communicates only with the air of the cylinder. If the cock be opened while the weights are attached, the cylinder sucks air in with a constant force (in the above example, one-sixtieth of atmospheric pressure), and rises. If the mask be now firmly held before the nose and mouth, and an expiration made while the cock is open, the air is drawn out of the lungs with constant force, and expiration assisted. We may also inspire, if we choose, rarefied air. Should it be desired, on the contrary, to employ compressed air, the cylinder is first raised by attaching weights; these are then taken off, and weights laid upon the cylinder. If, for example, ten pounds be laid on, we work with a power of twenty pounds (= one-sixtieth of an atmosphere) and, again, the mercurial guage shows a pressure of twelve millimetres, but in the opposite direction. The cock being opened, the condensed air streams out under constant pressure, and may be employed for inspiration. Waldenburg has investigated the effects of condensed and rarefied air on healthy and diseased persons, and arrived at very important results, which follow with almost the certainty of a physical experiment. The power which he usually employs, both for rarefaction and condensation, amounts, generally, to one-sixtieth to one-fortieth of an atmosphere (20 to 30 lbs.); in exceptional cases, he has gone as high as one-twentieth of an atmosphere. For *inspiration* of rarefied air, however, he employs a much smaller force, usually one-three-hundredth to one-hundredth of an atmosphere.

A. Effects upon respiration. 1. By inspiration of condensed, and by expiration into rarefied air, the ventilation of the lungs is for the time being increased. Persons, for instance, with a vital capacity of the lungs of 4,000 cubic centimetres, inspire or expire several hundred cubic centimetres, or even 1,000 to 2,000 centimetres more than their vital capacity amounts to. The thorax is, therefore, by the inspiration of condensed air, more widely expanded than is otherwise possible by the deepest inspiration; on the other hand, by expiration into rarefied air, the lungs contract more than is otherwise the case in forced expiration; or, in other words, by expiration into rarefied air, a part of the residuary air is drawn mechanically from the lungs. 2. By continued employment, both of inspiration of compressed and expiration into rarefied air, the vital capacity of the lungs is gradually considerably increased. In several cases of emphysema, Waldenburg has seen the vital capacity within a few weeks increase by more than 1,000 cubic centimetres; in the case of one gentleman, it rose within fourteen days from 2,800 to 4,000 cubic centimetres. In accordance with this, it could be proved by percussion that the previously abnormally expanded lung gradually contracted and returned to its normal limits. 3. By means of the pneumatometer, we may show with cer-

tainty that the power of inspiration, as well as the pressure of expiration, increases by the use of the pneumatic apparatus, and often very considerably so. For instance, a person suffering from emphysema had, when he came under treatment, an inspiratory power of 130 *millimetres*, and exerted by expiration a pressure of 100 *millimetres*; within fourteen days, the former increased to 150 *millimetres*, the latter to 140 *millimetres*. In the case of a phthisical patient, with inspiration of 60 *millimetres*, and expiration of 90 *millimetres*, both increased within six days to 110 *millimetres*.

From these results, the indications for treatment become self-evident. Expiration into rarefied air is chiefly used for emphysema of the lungs; and retraction of the expanded lungs, which may be shown by percussion to have taken place, is with certainty to be accomplished. Anatomical lesions cannot, of course, be done away with. Inspiration of compressed air is indicated where it is desired to enlarge the thorax and expand the lungs, especially as a prophylactic against phthisis in the first stage of consumption, in conditions consequent upon pleurisy, in pleuritic effusions after tapping, for inducing artificial respiration, &c.

B. Effects upon the heart and circulation. Physiology teaches us that the mechanism of respiration has an essential influence upon that of circulation. The lungs enclosed air-tight in the thorax, exert a negative pressure upon the heart and the great vessels, and this is greatest during inspiration; the blood is, as it were, sucked out of the veins, and pressure in the aortic system is diminished, as seen in the kymographion. Two well-known, physiological experiments (Johannes Muller, Ed. Weber, Donders) prove that by changing the pressure in the lungs, the heart's action may be powerfully influenced, so much so as to cause apparent death. In the first place, by means of as deep and as long-retained inspiration as possible, with the mouth and nose closed, the pulse may be made completely to disappear. Secondly, by forcibly expelling air, after a deep inspiration, with the glottis closed, circulation may be likewise impeded, and even brought to a stand-still. In the first experiment, the negative pressure of the lungs is largely increased, and thereby the power of the heart so diminished that it can no longer act; in the second experiment, the negative pressure is changed into a considerable positive pressure, and thereby the flow of blood from the veins into the heart is completely checked. The pneumatic apparatus enables us to make use of the mechanical effects of the increased and diminished pressure upon the heart and vessels for therapeutical purposes, and the power to be applied may be exactly regulated according to weights or mercurial pressure. Waldenburg has obtained the following results with it:—

1. Inspiration of compressed air. By this the pressure in the lung is increased; it becomes less negative; or, with a sufficient degree of compression, is converted into a positive pressure. The necessary consequences of this are the following:—*a.* The pressure in the aortic system is raised; the pulse becomes more resistant, and even hard. *b.* The flow of the blood from the heart into the aorta is increased; the pulse becomes fuller and larger. *c.* The flow of the blood from the veins into the right side of the heart is checked; the jugular veins are plainly seen to become turgid. Inasmuch as more blood streams into the aortic system, and less flows from the veins, there arises an

increased fulness of blood in the greater circulation, while the heart and lungs are disburdened of the blood. Expiration into compressed air works in a like manner, only more energetically; this is, however, on account of the disturbance of respiration, less capable of being therapeutically utilized.

2. Inspiration of rarefied air. The effect of this is quite the reverse; the pressure of the lungs becomes still more strongly negative, with these results. *a.* The pressure in the aortic system is diminished; the pulse loses in tension, and becomes soft. *b.* Less blood flows out of the heart into the aorta; the pulse becomes smaller and less full. *c.* The diminished pressure connected with a widely-expanded thorax draws the blood more forcibly from the veins into the right side of the heart; the jugular veins collapse visibly. *d.* Inasmuch as less blood flows from the left side of the heart, and more blood is drawn into the right, there follows an increased fulness of blood in the chest, and a diminished fulness in other parts of the body.

Similar, only less energetic, is the effect of expiration into rarefied air. The indications, according to these physiological premises, are clear. The inspiration of compressed air is indicated where the flow of blood from the lungs and left side of the heart is impeded, especially in insufficiency or stenosis of the mitral and of the aortic valves. In several cases of insufficiency of the mitral valve, with alarming symptoms, Waldenburg has obtained the most brilliant results from the application of compressed air. Furthermore, compressed air is indicated in chronic inflammatory processes of the lungs, as in phthisis, in bronchial catarrh, and in chronic hæmoptysis. Compressed air works in all these cases like a venesection which is confined to the organs of the chest.

Inspiration of rarefied air is, on the contrary, indicated where there exists an impediment to the flow of blood in the veins, especially in stenosis, or insufficiency in the valves of the right side of the heart. It is further to be employed to bring about a greater fulness of blood in the lungs, especially as a prophylactic means in persons with a consumptive tendency, where, at the same time, it serves also as the best gymnastic exercise for strengthening the muscles of the thorax. This agrees with the theory advanced by Waldenburg and others (see his work on Tuberculosis, &c.) concerning the etiology of phthisis, according to which the insufficient fulness of blood in the lungs disposes to cheesification. In these cases, however, from the grounds at first alluded to, inspiration of compressed air should be combined with it. The contraindications are also suggested by the physiological premises. Rarefied air should not be used in hæmoptysis or disposition thereto, nor in erethitic inflammation of the lungs. Compressed air is contraindicated in abnormally increased pressure in the aortic system; in congestion of the brain, where the coats of the vessels are not intact, giving rise to the apprehension of ruptures, and especially in the so-called apoplectic habit.

Various modifications of Waldenburg's apparatus have been proposed by Cube, Störck and Biedert, of which Störck's is absurd, the others of doubtful utility.

Sommerbrodt confirms the remarkable success of Waldenburg in the treatment of bronchial catarrh by this means.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 8, 1874.

It is not yet twelve months since the death of the unfortunate Mrs. Crie, who asked for ether, but was killed by chloroform, administered by Dr. Eastham, but we have already another victim sacrificed to this same idol. Charles Linscott, a strong and healthy brakeman, entered the office of Dr. O. P. Rice on September 26th, to have a tooth extracted. After some fruitless attempts, the dentist administered chloroform. A witness, who was present a part of the time, said that the deceased asked for ether; Dr. Rice said that he consented to chloroform. There not being enough of the anæsthetic, more was sent for, under which the patient died in the usual way. Dr. Rice rubbed the dying man's face and hands with ammonia, put a little morphia on the tongue, and made some apparently inefficient, certainly ineffectual, attempts at resuscitation. Coroner Ainsworth was called, and ordered an autopsy and an inquest; from the testimony given at which, we have condensed the above account of the death. The autopsy was made by Dr. A. B. Hall. The membranes of the brain were very much congested, as were also the lungs. There were pretty extensive adhesions from an old pleurisy on the right side. The heart was healthy. The abdominal viscera were rather darker than usual, but otherwise normal. The blood was dark and fluid in all parts of the body. Most of the organs emitted an odor similar to that of a cloth on which chloroform had been used an hour or two previously. Drs. George H. Gay, R. M. Hodges and Norton Folsom gave the oft-repeated testimony to the danger of chloroform, and to the safety of ether. The jury found that the chloroform was the cause of death, declared its use to be unjustifiable, and recommended a law to prohibit it.

Here is the same sad story, which has been told so often, again repeated. A healthy man wishes to have a trifling operation painlessly performed; the practitioner wantonly, sometimes in disregard of the request of his patient, uses a dangerous anæsthetic when he might use a safe one, and sends the victim to his account, leaving, often, a family without support. The practitioner knows that this accident has happened to many, and may happen to any one, and that no skill in administration or resuscitation is sure to avert the fatal result; but he has already fifty, one hundred or a thousand times recklessly endangered the lives entrusted to him without accident, so, confident in his impunity, and exclaiming with the ungodly, "tush! none of these things shall happen to me!" he takes the risk once too often. We

hold that, in the light of morality, this conduct is criminal, and we hope that the coming Legislature will make it so in the eye of the law.

ONE of the most common sources of astonishment to the educated foreigner visiting this country, of mortification to the profession and of injury to the community, is the extensive and often indecent advertisement of quack medicines, which have received a quasi endorsement by the government in the form of a patent. Patents were originally intended to secure to the inventor who, by industry and genius, had made some useful discovery, a proper reward for his services to humanity, by forbidding others to borrow the fruits of his labors without making him some return, and so far the system is just and worthy. The use, however, which has been made of it in favor of medicinal nostrums can not certainly have been anticipated by its originators. They can never have intended that this plan should have been extended so as to include the liberal professions; that the physician should not be at liberty to prescribe to a man in pain any given combination of drugs without paying a bonus to the one that first combined them; nor, on the other hand, to confer a kind of respectability on useless and, for the most part, injurious compositions. The harm done to the community is beyond computation, and, sad to say, is by no means confined to the lowest classes, but pervades the whole of society. An eminent practitioner once remarked to us that the tendency to quackery is as natural as that to sin, and, this being the case, it is evident that our best course is as much as possible to remove the temptation.

The variety of temptation, in other words the number of advertised and patented medicines, is incredible; and even if it were true that each one were good for some particular form of disease they must do great harm, none the less, as they are advertised as useful for every kind of complaint. One inventor declares that "even if a person ain't sick, taking this remedy will make him feel good;" but does not inform us if benefit comes from a spiritual or a spirituous ingredient. We know for a fact that several of these nostrums convey great satisfaction to the strict teetotalers of New England. Another benefactor promises relief to the lower animals, as well as to man; "my remedy will cure bots in horses, and rheumatism, sprains, chills, yellow fever and smallpox in man." In point of fact, few of these mixtures are of any special value for anything, and many are even dangerous; and, what is much to the point here, few have really the element of novelty which entitles them, viewed as mechanical compositions, to a patent.

We are deeply gratified to learn that there is at last hope of a reform. Dr. Robert G. Dyrenfurth, the new Principal Examiner in the department of chemistry, has lately refused a patent to one of these

mixtures. After some references to show that it is already well known, his argument runs as follows:—

“But beyond mere questions of novelty, I wish to call attention to the following reasons why protection should not be given to so-called inventions of this and a kindred nature.

“Such patents have, it is true, been granted, but it is not too late to stop. 1. (Having reference to this particular case and others where mixtures are called compounds.)

“Each one of a number of ingredients being used alone to attain the result which it is said a mixture of all will produce; or even separate ingredients being put into mixture to perform separate functions, or meet separate indications within the human body, a mere mechanical assemblage of such ingredients, there being no chemical union, is not a novel and patentable *compound*.

“2. There is no invention in mixing a number of drugs, all of which have been used alone to produce the result wrought.

“It may be claimed that invention is unnecessary in a composition of matter, that the spirit of the law does not require it, that inasmuch as Section 24 provides that any person who has invented or *discovered* any new and useful art, machine, manufacture or composition of matter, may, under certain conditions, obtain a patent therefor, the term *discovery* applies to compositions, *invention* to the rest. Yet, even if this be the case, and while the difference between *invention* and *discovery* may be that, under the former, a new thing is created, under the latter something already existing is found, which produces novel and unexpected effects in a line not analogous to anything to which the thing has been applied before (even if this be the case, I say), applicant has done nothing to entitle him to a patent, for he has not even made a discovery. His ingredients but perform their well-known functions. Generally, however, the term ‘discovered’ has no force, except when its meaning is synonymous with that of *invented*.

“3. To write a prescription is again not invention, nor yet a patentable discovery, but rather a matter of skill.

“The tyro in medicine is taught the effects of the various remedies, and is told that he may mix or combine certain of them. He is taught, furthermore, how, under the various complications of disease, a number of drugs may be simultaneously indicated and administered. A complication, or even a single symptom arising where the skill of the physician would point out to him that a number of drugs were necessary, his prescribing these, mixing them in *any* required proportion and exhibiting them, would be ascribable to such *skill*, but would not be *invention*.

“4. The granting of patents upon the various prescriptions is pernicious, *first*, because the same nostrum cannot be taken with benefit by all persons, even for the same disease, i. e., the one disease (they are usually sold to cure a score, the absurdity of which ought to be apparent to every one) difference in diathesis requiring different remedies; such patents thus generally inure to the benefit of one (the patentee), and the misery of many; and, secondly, for the following reason: A certain mixture of well-known drugs being indicated, the *already existing knowledge* (his schooling) of the physician of such fact should not be trammelled by the further fact that some enterprising individual had already taken to himself a monopoly (that is a grant

which restrains others from the exercise of a right or privilege which they had before the grant was made) of just this mixture, in contravention of public policy and the welfare of man.

"5. And, finally, if this or any other prescription be an invention, then the thousands of physicians throughout the world must make thousands of patentable inventions every day, an *invention* being thus, in fact, unfolded to mankind every time an original prescription is written by a competent leech.

ROBERT G. DYRENFURTH,

Principal Examiner U. S. Patent Office."

The law is lax, and we fear that this decision may not be supported; but in any case, Dr. Dyrenfurth deserves the gratitude of the whole country. He has done his part, it is now for the profession to use all possible influence to obtain a new and a better patent law, which shall recognize no so-called medical discoveries.

MEDICAL BOARD OF BELLEVUE HOSPITAL.—The following is the Medical Board of Bellevue Hospital as constituted by recent resolutions of the Commissioners of Public Charities and Correction.

Consulting Physicians and Surgeons.—John T. Metcalfe, B. W. McReady, William H. Van Buren, Isaac E. Taylor, Fordyce Barker, Lewis A. Sayre, Alexander B. Mott and John J. Crane.

Visiting Physicians and Surgeons.—Austin Flint, Sr., James R. Wood, Alonzo Clark, Henry B. Sands, Alfred L. Loomis, Stephen Smith, Wm. B. Eager, Ernst Krackowizer, Edward G. Janeway, Frank H. Hamilton, Francis Delafield, Thomas M. Markoe, William H. Thompson, Erskine Mason, Gouverneur M. Smith and John W. S. Gouley.

Correspondence.

MESSRS. EDITORS.—The gentleman who reviewed the Transactions of the North Carolina Medical Society in your JOURNAL of Sept. 17th, either did not read my paper on Puerperal Eclampsia carefully, or misrepresented it intentionally. Either view of the case, you will readily perceive, is not especially creditable to a reviewer; but I am charitable enough to suppose that he read my article hastily and carelessly, and then reviewed it without any intention of doing me an injury. He says, "whatever the underlying condition be, he (Dr. Payne) would bleed with a boldness perfectly terrifying to those who believe 'the lancet a relic of barbarism.'" The gentleman has no authority from anything stated in my paper for saying "whatever the underlying condition be, he would bleed," because, on the contrary, it is distinctly stated "that I am decidedly in favor of blood-letting as a mechanical means of relief, not only in the *apoplectic*, but also in *many cases* of the uræmic forms of puerperal eclampsia, and no mention whatever is made of bleeding in those cases which are caused by cerebro-spinal reflex irritation of uterine origin. I very freely admit that I may "bleed with a boldness perfectly terrifying to those who believe the lancet a relic of barbarism," since the mere sight of a few small drops of blood is quite sufficient to cause their cheeks to blanch, their frames to tremble, and their knees to shake, and who, "while they dare not strike for fear, would make it virtue in them to forbear."

My reviewer says, "in one case, seventy ounces were taken *pleno rivo*, and the patient 'recovered well.'" This is a perversion, not only of my meaning, but of the facts as stated. My language is plain! "He had bled her before my arrival some forty or fifty ounces. I sustained the doctor fully in his treatment, and we made a *larger opening in the vein*, from which we abstracted *twenty ounces more of blood, pleno rivo*."

Again, he says, "as concomitant treatment, Dr. Payne gives opium and morphia in full doses." This is true so far as it goes, but it does not do me full justice.

These are my words: "Now I will not pretend to deny the efficacy of chloroform, chloral hydrate, ether, bromide of potassium, veratrum viride, and the preparations of opium in this disease, because I know their potency; but, while they may accomplish all the good ends claimed for them, still, instead of resorting to either of them alone, I prefer to *combine their use* with that of *venesection* in the *greater majority* of cases." I speak of active purgation, also, and one of the cases reported was treated with *chloroform and morphia alone*. My reviewer further remarks: "Not only is bleeding practised thus to control convulsions, but when, during pregnancy, any premonitory signs of uræmia present themselves, the lancet is also resorted to, and it is regarded 'as a significant fact that not one of these cases, during a practice of nearly twenty years, has ever had a puerperal convulsion.'" Here is another distortion. The following words are mine: "And not only do I believe all this, but I feel assured that blood-letting is a most potent remedy for good as a prophylactic in threatened convulsions. It has generally been the custom for those of my patients who expect to be confined, to put themselves under my care some time before confinement, and whenever they have complained of "vertigo, dimness of vision, ringing in the ears, sudden flushings of the face, a sense of fulness of the head, and a tendency to somnolency at any time *during the latter part of gestation*, I have almost invariably bled them (*en passant* I do not regard the above symptoms as absolutely pathognomonic of uræmia). But when patients with such symptoms have presented themselves I have *most frequently bled them*; and I regard it as a significant fact, that not one of those who have thus come under my care during a practice of nearly twenty years, have ever had a puerperal convulsion."

The doctor closes his notice of my article by observing, "Dr. Payne's method, although undoubtedly 'heroic,' would not, in all latitudes, be regarded as orthodox."

The gentleman does me more than justice here, because I do not think it can be considered "heroic" in me to follow the practice of the *very best* obstetricians now living, or who have lived in the years gone by; and I may be permitted to remark that I prefer what I believe to be truth, to what may be regarded orthodoxy in one latitude, and heterodoxy in another.

I have no doubt that Satan himself can give most plausible evidences of the soundness of his opinions, and I have no doubt that his opinions are regarded as orthodox in many latitudes outside of his own dominions. "A prophet is not without *honor* save in his own country." And I am sure that neither does my reviewer, nor do I, desire any better recognition of our opinions in any latitude simply that we may be regarded as *en haut ton*.

Yours, very truly,

R. L. PAYNE.

Lexington, N. C., Sept. 27, 1874.

FRACTURE OF BOTH PATELLÆ FROM MUSCULAR ACTION.

MESSRS. EDITORS.—The following case illustrates an injury sufficiently rare to warrant its presentation in the JOURNAL.

Mrs. M., aged 38, is a well-developed, strong woman, weighing one hundred and seventy or eighty pounds.

Last May, while crossing from the curbstone to the street, by a misstep, she turned the foot obliquely, and, to save herself from falling, made violent muscular exertion, when "something gave away in both knees," and she sank to the pavement.

She was taken in a carriage to her home in Brighton, where, soon after, I saw her. Both patellæ were separated transversely, near the middle, the upper fragment lying two inches above its fellow. Ligamentous union supervened, with separation of the fragments from one-quarter to half an inch.

Truly yours,

HENRY O. MARCY.

Cambridge, Oct. 1, 1874.

Medical Miscellany.

Dr. NELSON, of Danville, Ky., reports, in the *American Medical Weekly*, the case of a child with apparently three phalanges in each thumb. Prof. Leidy thinks the appearance due to excessive development of the trapezium.

Dr. SIDNEY RINGER and Wm. Murrell report in the *Lancet* excellent results in the treatment of winter cough and bronchitic asthma by the inhalation of ipecacuanha.

ARTIFICIAL disease of the kidney in rabbits has been produced by Dr. Zielonko, of St. Petersburg, by tying a ligature round the aorta so as to cause a certain amount of stenosis.

PROF. MICHEL, of Nancy, has tied the interosseous artery of the arm for a bullet wound in the fore-arm, hæmorrhage continuing in spite of ligature of the brachial in its lower quarter, and of the ulnar and radial in their upper third.

THE most characteristic serial which comes under our notice is the *Nashville Journal of Medicine*, which, for a combination of highfalutin talk, dashed with a shade of rowdyism, is not to be surpassed.—*British Medical Journal*.

HUMAN AND ANIMAL VIRUS.—The discussion on the vaccination question at the Paris Academy of Medicine appears to have been almost as exciting as some at the National Assembly. It was finally decided that nothing had been shown to prove that heifer virus was inferior to human, and the government was advised to make re-vaccination obligatory.

ABNORMAL PHYSICAL DEVELOPMENTS.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, Dr. P. H. Watson alluded to the case of a young lady who was covered with a hirsute downy covering, or lanugo, to such an extent that she could not appear in society. Her relatives wanted something to be done for her, and sea-bathing was recommended; but soon after, when her menstruation began to be established, the extra hair covering entirely disappeared.

THE FAMILY BONAPARTE.—Madame Letitia Rattazzi, one of the members of the family Bonaparte, has for some months been visiting the principal towns of Europe, to study the ways and means of establishing a hospital which shall be especially devoted to the treatment of cancer. As is well known, several of the members of this family have succumbed to this terrible disease. The first deposit will be 150,000 francs, to which will be added a biennial prize of 5,000 francs for the best work on the subject, as well as a sum of 20,000 francs for him who shall describe the true cure for cancer.—*The London Medical Record*.

MATERNAL IMPRESSIONS.—There was an extended and very interesting discussion of this subject at the meeting of the British Medical Association. Mr. Clapperton, who read the paper, cited several curious cases, and thought that the phenomenon was not confined to human beings. Dr. Coyder, who had formerly been an unbeliever, stated that he changed his views after a remarkable case in his own practice. He amputated the finger of a man in the presence of his daughter, then one month pregnant. She was much impressed, and her child had the corresponding finger wanting. The general opinion of those taking part in the discussion appeared to be that these cases were more than coincidences, but some gentlemen dwelt on the fact that a great number of frights are received by pregnant women without any bad results, even when they dread them. Dr. Fothergill stated that his mother had feared that he would be born minus an arm, which, however, had not been the case.

PHYSICAL PECULIARITIES OF NEGROES.—Dr. A. W. McDowell publishes, in the *American Practitioner*, some observations on this subject which contain some facts that are new to us. The negro's want of power of resisting disease was abundantly shown in the late war. Dr. McDowell states that the fine chests frequently seen among the males are due solely to the great development of the pectoral muscles, and that the lungs are decidedly less in weight than those of white men. The liver, on the other hand, is larger. He goes on to say, "The negro's lower bowel was smaller. The colored troops were much troubled with constipation, often requiring purgatives, while at the same time and place the white troops had diarrhœa. The most marked difference existed between the spleen of the black and that of the white, the former only weighing half as much as the latter. 'Ague cake' was one of the sequelæ of malarial disease observed among the whites, but not among the blacks." In his army practice, the author weighed the brain at every *post mortem*, and found that its weight increased in direct ratio to the admixture of Caucasian blood.

DEATH OF DR. ANSTIE.—Death has claimed another victim from the foremost ranks of the profession in the person of Dr. Anstie, Physician to the Westminster Hospital, and well known by his writings on hygiene and therapeutics, and as editor of our excellent cotemporary, *The Practitioner*. Several cases of severe illness having occurred in the School of the Royal Patriotic Fund, at Wandsworth, Dr. Anstie was called in to advise as to the causes and means of prevention, as well as to the treatment of the sufferers. With a disregard of principles which he would most strenuously have insisted upon in others, he spent several hours on Sunday, the 6th inst., in these investigations, exposed to sewer-gas, and resumed them on Tuesday, the 8th. In the evening of that day, he complained of being unwell, and, notwithstanding the unremitting attention of his friends, Dr. George Johnson and Dr. Burdon Sanderson, he died on Saturday of blood-poisoning, occasioned, primarily, from a puncture in the hand whilst engaged in a *post-mortem* on one of the pupils.—*Medical Press and Circular*.

THE SIMPSON MEMORIAL.—The result of a movement, set on foot shortly after the death of Sir James Y. Simpson, has been that nearly £6,000 has been subscribed for the purpose of founding a memorial in his honor. It has been determined to hand over £3,000 of that amount to the Maternity Hospital in Edinburgh, on condition that it shall be supplemented by an equal sum, to be applied towards the erection of a new building, with which the name of Simpson shall be associated, and that the remaining portion shall be applied to the erection of a statue of Sir James Simpson in some public place in Edinburgh.—*British Medical Journal*.

MORTALITY IN MASSACHUSETTS.—Deaths in seventeen Cities and towns for the week ending September 26, 1874.

Boston, 173; Worcester, 23; Lowell, 28; Milford, 4; Chelsea, 10; Cambridge, 22; Salem, 12; Lawrence, 22; Springfield, 11; Lynn, 17; Gloucester, 3; Fitchburgh, 9; Newburyport, 7; Fall River, 43; Haverhill, 5; Holyoke, 11; Pittsfield, 4. Total, 404.

Prevalent Diseases.—Cholera infantum, 79; consumption, 57; dysentery and diarrhœa, 29; typhoid fever, 20; pneumonia, 13; scarlet fever, 11; whooping cough, 11.

Fall River reports twenty-five deaths from accident.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 3, 150. Males, 82; females, 68. Accident, 3; apoplexy, 6; asthma, 1; inflammation of the bowels, 3; bronchitis, 4; disease of the brain, 6; cancer, 3; cerebro-spinal meningitis, 2; cholera infantum, 22; consumption, 23; cyanosis, 1; debility, 9; diarrhœa, 14; dropsy, 1; dropsy of the brain, 2; drowned, 1; dysentery, 1; diphtheria, 2; erysipelas, 2; scarlet fever, 2; typhoid fever, 8; gastritis, 2; disease of the heart, 6; hernia, 1; intemperance, 2; jaundice, 1; locomotor ataxy, 1; inflammation of the lungs, 4; marasmus, 6; old age, 1; paralysis, 1; premature birth, 1; peritonitis, 1; puerperal disease, 1; disease of the spine, 1; teething, 1; tumor, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 79; between 5 and 20 years, 13; between 20 and 40 years, 26; between 40 and 60 years, 20; over 60 years, 12. Born in the United States, 119; Ireland, 20; other places, 11.

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ANGINA PECTORIS, ILLUSTRATED BY THE CASE OF CHARLES SUMNER.*

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MR. PRESIDENT,—The terms of the resolution requesting this paper confine it to the consideration of “what is known of the pathology and treatment of angina pectoris,” and asks for “illustrations from the case of Charles Sumner, who was for several years under my care.”

So little has been definitely settled by the profession concerning its “pathology and treatment,” that but a moment or two of your time would be consumed in the statement of known facts, and I shall therefore request permission in the outset to go somewhat outside of your request, that I may refer as well to some of the opinions which have been entertained from time to time by prominent medical men within the last century.

It is now a little more than one hundred years since this disease first received a name and a place among the ills which afflict the human race.

Dr. Heberden, in 1768, first described angina pectoris, and declared that it was caused by organic disease of the heart. His articles were published in the second and third volumes of the Transactions of the London College of Physicians, since which time very little of its real pathology, if any, has been discovered, and almost nothing has been definitely decided in regard to its treatment.

In 1779, Dr. Parry wrote “an inquiry into the symptoms and causes of ‘syncope anginosa,’ commonly called angina pectoris.”

For many years after this work, the most weighty authorities united in attributing it to a sudden impediment in the coronary circulation. A weak, flabby condition of the heart was held by equally good men to be its undoubted cause for a number of years.

It being clinically true that during an attack, and in many cases during the interval, the impulse of the heart is weak and the pulse intermittent, it was argued that any cause which would produce these symptoms was therefore a cause of angina. And under this head were classed fatty degeneration, attenuation of the ventricular walls, insufficiency of the aortic valves, with regurgitation; but, as a rule, the majority of writers placed as its chief operating cause a defective coronary circulation.

* Prepared at the request of the Medical Society of the Alumni of the Medical Department of Georgetown College, Washington, D. C., and read May 4, 1874.

Some went so far as to declare this to be the only cause, and endeavored to prove that as a result of partial or complete occlusion of one coronary artery by ossification or atheromatous deposit, the heart, thus getting only a part of its blood supply, would be weak, and exhibit symptoms similar to fatty degeneration.

Dr. Stokes, the great Dublin authority on chest diseases, concludes that angina sums up the symptoms of a weakened heart, and connects it with disease of the coronary arteries.

Dr. Copeland thinks a variety of morbid changes in the heart may predispose to it.

Dr. Latham has written considerably to prove it to be caused by spasm of the heart, and insists upon its analogy to cramp in the voluntary muscles, and upon the efficacy of opium in relieving the distress. There is no doubt of the similarity in some respects of the agonizing pain and sense of constriction of the chest in angina, with the cramp of some of the voluntary muscles. It is, however, known to be true that this stroke of cramp or spasm of these muscles may continue in a state of absolute rigidity for a variable length of time, while there is required on the part of the heart constant relaxations, in order to admit the blood into its cavities from the return venous circulation, and that cramp or spasm of the heart would as much interfere with its functional action as a shock of paralysis.

It was until recently believed that this disease was always connected in some way, but exactly how no one attempted fully to explain, with some of the various pathological conditions of the heart or large arteries.

Niemeyer says angina pectoris is found almost exclusively in persons suffering from organic disease of the heart. Either ossification of the coronary arteries, valvular defects, hypertrophy, degeneration, or aneurism of the aorta has been found upon autopsy of most persons who have been afflicted in this manner. Nevertheless, we cannot regard angina pectoris as indicative of any of these diseases, not one of them being constant. And the malady itself always takes the same form, while the structural alterations differ most widely.

He calls it "nervous disorder of the heart," and quotes the term "cardiac neuralgia," to which these various organic changes merely afford a predisposition.

In certain rare instances, he has seen it where no organic disease existed, particularly in old obese persons.

Watson was of the opinion that it was a symptom of fatty degeneration, and considerable doubt began to be expressed if it was confined to cases of trouble with the coronary arteries; also whether there was any relation of cause or effect in its production assignable properly to disease of these arteries.

Wood states that in some cases it has been connected with tenderness of the spine. He thought that causes which resulted in the production of gout, rheumatism and neuralgia, when not present in sufficient force to produce any of these diseases, might produce angina, or that metastasis might occur. This is a comparatively rare affection.

Flint has seen 150 cases of organic disease of the heart, and only 7 of these had symptoms of angina.

He did not see a single case during the five years of a large private and hospital practice. He is of the opinion that it has a probable

connection, pathologically, with organic disease of the heart, but upon what pathological condition or circumstance common to different forms of organic disease it depends, is not yet ascertained.

He accounts for the suddenness of death in this very reasonable way, viz., he attributes it to over-accumulation of blood in the ventricular cavities, and arrest of the heart's action from paralysis. This disease has been noticed in persons where no pathological condition of the heart was present. In these cases, the great prostration and sense of impending death did not seem so great as where it had originated in some organic disease of the heart.

It is generally estimated, however, that the danger of sudden death in angina is proportioned to the gravity of the cardiac lesion which has given rise to it. There are several cases on record where the original disease of the heart has proved fatal without any of the angina symptoms making their appearance during the fatal attack.

Flint shows our lamentable ignorance upon its pathology as follows: "Of measures calculated to postpone or prevent the recurrence of its paroxysm, little is to be said, because we are unable to state upon which condition, of the various cardiac lesions, angina depends for its production," and he "knows of no remedies upon which reliance can be placed to effect a cure. Clinical discovery not having led to any means of striking at its root, it is doubtful if any special medication is to be pursued with a hope of effecting a cure, or in exerting a positive influence in lengthening the period of exemption from recurring attacks."

Handfield Jones, in his work on diseases of the nervous system, describes angina pectoris among functional troubles, and arrives at a positive opinion that it is a neuralgia. In answer to objections raised that neuralgia is never suddenly fatal, Jones declares that while neuralgia may be comparatively trivial when affecting the tri-facial or sciatic nerves, yet when it attacks the cardiac plexus it becomes a very grave affair. He accounts for the suddenness of death on the ground of the implication of organs which reside at the seat of life, and explains that were the heart not required to keep up the life of the patient, death need not take place, and would not, with the same amount of disease in any organ not constantly required to maintain life.

Roberts says, "angina pectoris or the 'breast-pang' is *supposed* to be a neurotic affection, associated with the cardiac plexus, accompanied with, according to some, spasm, and according to others, paralysis of the muscular tissue of the heart."

A majority of the cases of which he gives record have originated in connection with extensive atheromata or calcification of the coronary arteries, fatty degeneration or flabby dilatation of the ventricular walls.

Aitken thinks that it should be regarded rather as a symptom of organic disease of the heart, than as a disease by itself.

Bellingham, who is quoted by Aitken, says that the pain of angina so nearly resembles the agony of dyspnoea that he has been led to the declaration that angina is to the heart what dyspnoea is to the lungs, and has called it "dyspnoea of the heart."

Reynolds calls it "the neurotic disease," and recommends arsenic for its cure.

Jones speaks of the depressing influence of certain matters taken into

the stomach upon the heart, and mentions cases where disagreeable heart symptoms had followed the drinking large draughts of cold water, eating indigestible food; and classes tea among the occasional causes of angina pectoris.

I have thus far referred only to the authority and opinions of others. I shall hereafter draw from my own experience, when it is necessary to enforce, illustrate or corroborate the views which I may state.

During the three years of my professional intercourse with Mr. Sumner, I was a constant witness to many phases of this disease, and, in connection with Dr. Brown-Séquard, saw all treatment fail of a cure, while it is probable that our patient was indebted to morphine alone for the temporary alleviation of the terrible agony which its frequent attacks caused him.

Referring to the opinion of Jones, while Mr. Sumner never suffered from more than one attack of indigestion in his life, it was his habit to drink two cups of strong tea at breakfast, and I think he took considerable pride in his taste and skill in the selection of the best brands. He only drank it in the morning, and his attacks of angina appeared, as a rule, in the latter part of the day, frequently in the night.

I think the cause for their occurring so frequently at night during the winter of 1872 and 1873 was directly traceable to his sleeplessness, and the nervousness and exhaustion resulting therefrom.

I think I was able to trace this relation between his bodily vigor and power of endurance and the frequency of his paroxysms.

This inability to sleep well developed itself soon after the Presidential election and the death of Mr. Greeley, and as soon as he could be made to sleep nights these attacks grew less frequent.

The fact of his drinking tea was known to all his physicians, but none of the distinguished number, in this country or in Europe, ever advised him to suspend its use as a prevention of angina.

In my connection with this case, I have observed a curious fact, which it may be interesting to refer to here. I mean the unusual number of patients suffering from this disease, who, previous to Mr. Sumner's severe illness, had never supposed that they had any disease of the heart.

This fact has been referred to by newspaper correspondents, viz., that during the illness of Mr. Sumner, and especially since his death, instances of its occurrence have considerably increased, and especially among those who strongly sympathized with the late Senator.

This seemingly sympathetic cause of disease has been noticed in other cases. Probably, most physicians who have had much hospital experience have seen a case of hysterical convulsions followed immediately by several others, in women, who previously never had an attack, and in a lying-in-ward I have seen a case of puerperal convulsions act as an exciting cause of eclampsia in other occupants waiting to be confined.

I have been consulted by as many as thirty individuals, since Mr. Sumner's death, who imagined they were afflicted with his complaint. In some of these cases, there was organic disease of the heart, but in a majority of them there was no cardiac trouble at all.

Two weeks after the autopsy in Mr. Sumner's case, one of the physicians who assisted, a devotedly attached friend of the deceased, died of angina pectoris. I am informed that Dr. Hitchcock had but a few

attacks, and that, prior to Mr. Sumner's death, he had never been a sufferer from angina. I am not aware of his age, but, as I remember him the day of the *post-mortem*, he was an erect, elderly gentleman.

I have myself suffered two attacks very closely resembling, if they were not really, angina. One occurred immediately after Mr. Sumner's death, when greatly exhausted by constant attendance at his bed-side.

Dr. Brown-Séquard, having arrived in town that evening, in response to my telegram announcing the sinking condition of our distinguished patient, heard of my illness, and kindly came to my aid. After carefully examining the heart, and finding nothing abnormal, yet he said there were present the undoubted phenomena of a paroxysm of angina. He prescribed absolute rest in bed, artificial heat applied, a sinapism over the heart, and internally wine, opium and quinine.

The pain was soon allayed, and I slept quietly until morning.

I was present the next day, at the request of Messrs. Hooper and Pierce, to witness the taking of a plaster cast of the face and head of the Senator, by Mr. Preston Powers, and to prevent any injury to the expression or features. The room was the same in which the death occurred, and its chill, together with all its surroundings, induced, I am disposed to think, a renewal of the pain. This passed off soon after leaving the house. The second came on a few days ago, while preparing this paper. It was probably produced by a re-awakening of those recollections and sympathies which were so active in the causation of the first.

While conversing with friends or physicians upon the subject of these attacks, the pain has several times become greatly aggravated; and, *per contra*, when suffering severely, if I became intensely interested in any subject foreign to myself, the pains would abate, and if my attention remained absorbed any length of time, entirely disappear. How many times physicians have noticed this fact in nervous diseases! Toothache and neuralgia afford every day illustrations.

Trousseau agrees with other later authorities in classing angina as a neuralgic disease. He says, "in spite of the numerous publications which treat of angina pectoris, the history of that complaint is not very satisfactorily known, and the various opinions which have been expressed as to its nature have thrown so little light upon the subject that he wishes, in his turn, to communicate his views upon this singular *neuralgia*."

He refers to the views which formerly ascribed its chief cause to disease of the coronary arteries, or to some disease of the heart, simply to deny that there exists any relation of cause or effect, and says that these diseases do not generally produce any neuralgic symptoms.

In the absence of appreciable structural changes found in many autopsies, and from the extreme variability of the characteristic phenomena which he describes, he concludes that angina pectoris is a neurosis, or, to use a more positive term, a neuralgia.

Brown-Séquard says angina pectoris has no "common name." On the evening of my illness, he said to a reporter at my house (they followed him everywhere during the few hours he remained in Washington that day), in reply to a question as to what angina really was, "it has no common name. It is a very painful disease, accompanied by its own characteristic symptoms, and, although it has some points of

resemblance to neuralgia, in reality it is not that disease, but is just what we see it is," and what that is, it is difficult in the face of the authorities quoted for me to say.

Brown-Séquard has more than once referred to Mr. Sumner's case, in letters to me suggesting treatment, as "our case of pseudo-angina."

Flint, for a while, made two divisions in his description of this disease, naming that form *pseudo-angina* which was not, or was supposed not to be, produced by disease of the heart, and *true* angina which was attributed to some discoverable organic lesion. In his last edition, he speaks of angina with, and angina without, disease of the heart, but in both cases calls them neuralgia.

Roberts settles down to what he calls three predisposing causes of this disease, viz., *male sex, advanced age, and high social position.*

These three causes were all present in Mr. Sumner's case.

Sir John Forbes, by diligent search, collected 88 cases, and found that only 8, or 1 in 11, were females, and that in 84 of those cases, the age was given, and that 72 of this number were above 50 years of age; 49 died suddenly, and 43 of them had unmistakable disease of the heart.

A considerable number of more recent writers in the journals are convinced that angina is essentially a neuralgic disease. Some have placed its seat in the diaphragm, others in the respiratory muscles, but most frequently its location is placed in the heart. Here, the neuralgia is said to affect the cardiac nerves given off by the pneumogastric, and radiates frequently to the nerves of the cervical and radial plexus. In patients suffering with angina pectoris, the pain down the left arm and in the left elbow is sometimes nearly as severe as that in the heart.

Mr. Sumner suffered greatly in this way. When the pain lasted any length of time, the ulnar side of his left hand would be almost paralyzed, and numbness would occasionally remain for hours after all pain had subsided.

When patients are seized with an attack, they are frequently compelled to stop where they are and remain perfectly still, taking only half an inspiration, lest any motion should prove instantly fatal.

This was not the case with Mr. Sumner. He would at times get ease by walking the floor, and was unconscious of any increase of the agony by this exercise. Sometimes, when an attack would occur in the street, or while walking, he would find relief by leaning against a tree or upon the arm of a friend, or by resting his elbows upon some hard substance upon the same plane with his shoulders. This is a usual symptom in angina. Paroxysms, as a rule, take place suddenly, are severe while they last, and terminate as abruptly as they commenced. In his case, the rule was that they were preceded by "slight murmurings" or shooting pains about the heart. I remember two instances, however, of being hastily summoned in the night, to his bedside, only to find on my arrival that the agony had all ceased. Once he told me that he "had not expected to survive until I reached him, but the moment he heard my voice in the hall, the pain was gone."

Mr. Sumner's first attack of angina, of which I have any knowledge, occurred in Paris, while undergoing that form of treatment which Brown-Séquard described "as a martyrdom, causing the greatest suffering which can be inflicted upon mortal man." He says in another

place—in a Boston lecture—“and so he passed through that terrible suffering, the greatest I have ever inflicted upon any being, man or animal.” He referred to the moxa which he had applied in six different places along the spinal column of his patient.

It may be as Wood says, that this first attack originated in tenderness or irritation of the spine, and it has always been Brown-Séquard's theory that much of his sufferings, and *possibly* his death, was caused by spinal irritation.

At no time during the life of the Senator was any disease of the heart diagnosed, and his chest had been ausculted by the best diagnosticians in this country and in Europe.

This attack in Paris came on suddenly, and with great severity. Brown-Séquard was sent for, but, having gone out of town to see a patient, did not arrive for eight or ten hours, during which time Mr. Sumner was suffering the greatest agony. When the Doctor finally arrived, his patient was in a state of partial syncope, pale, surface cold, and covered with clammy perspiration; pulse intermittent, feeble and slow. Large doses of morphine, sinapisms over the heart, hot mustard foot baths, dry heat applied to the body and limbs, produced reaction, while the morphia suspended the pain. Mr. Sumner had one other attack, which he described as very similar to the first, before he came under my care. The treatment was about the same, only the morphia was injected subcutaneously, producing its effect more quickly, and thus saving him much severe pain.

The history of this disease varies greatly in different patients, in its mode of attack, length of interval, and in the intensity of the agony produced. Thus, while some may be overcome by the first seizure, leaving doubt as to the cause of their death, others may survive several hundred. A patient may have one very painful and prostrating paroxysm, and may never have a second; but as a rule, others will follow, it may be, at a considerable interval, or they may occur in quick succession. There is a wide-spread, popular dread of a third attack.

At first, direct causes can be assigned, such as a great strain, exhaustion, anger, sudden fright, excitement or emotion; but as they increase in frequency, no cause can be traced. They will come on when the patient is perfectly quiet, or while asleep. The first attack since my connection with the case occurred on the evening of Prof. Tyndall's first lecture in Washington.

The bad air in the poorly-ventilated lecture-room, together with the slight shocks produced by the alternating darkness and brilliant lights during the chemical experiments of the professor, had fatigued his eyes and brain, perhaps, and, on coming out of the crowded hall, he ran a few steps to overtake a car, and immediately after taking his seat the pain came on.

Patients who are the victims of this terrible disease, instinctively avoid active exercise, such as walking against the wind, up hill or flights of steps hurriedly, or soon after a hearty meal.

The length of the interval between the attacks is governed by no law which we know anything about. In Mr. Sumner's case, a cause which would produce an attack at one time had frequently no effect when repeated. Again, a sudden turn in his easy-chair, while quietly reading at night, would start up a most tearing agony, while at other times an excited speech in the Senate, accompanied by the most forcible

ble and muscular gesticulation, would not create even the suggestion of pain. After a very quiet day at home, wholly undisturbed by exciting causes, physical, mental or moral, he has been awakened out of a sound sleep, without even a dream for a cause, by a paroxysm of pain, which would only be alleviated by large, hypodermic injections of morphia.

It is the tendency of this disease to produce death suddenly, and, as a rule, by collapse. Next to the fearful pain, one of the most characteristic symptoms is a sense of impending death; and this foreboding intensifies with the number of seizures.

It is said of John Hunter, who was a terrible sufferer from angina, that he declared to his class "that his life was in the hands of any person or circumstance which should act powerfully upon his mind," and, in fact, he ultimately died in St. George's Hospital, from strong but suppressed feelings upon a point in which he was greatly interested. John Leach, of the London Punch, died, after several attacks of angina, at the age of 54.

A very unpleasant feature of this disease is the knowledge that one is at the mercy, so to speak, of unfriendly circumstances, coupled with the uncertainty of obtaining successful medical treatment.

The patient becomes aware, after a time, that he may be fatally attacked at any moment, and this sword of Damocles suspended constantly over his head, together with the pain and the necessity to momentarily regulate his actions and emotions, renders his life such a burden to him that he is not unwilling for it to fall, and cut asunder his slender thread of life.

Mr. Sumner has remarked to me several times, "Dr. Johnson, this treacherous disease produces in my mind a positive uncertainty, when I go out of my house, whether I shall ever enter it again a living man, and, with the pain I have to suffer, makes my life such a burden that the sooner it does its work the better I shall be pleased. Life, at the price I have to pay, is not worth the having."

Mr. Sumner had, probably, as many as an hundred of these attacks. At first, a distinct cause could be assigned for each recurrence. The interval between them varied in length from two years to twenty minutes. After they began to take place more frequently, they seemed to lessen in severity.

Mr. Sumner dined, uniformly, at six o'clock. His usual hour for retiring was twelve. It has been urged by some non-medical, and, therefore, incompetent judges, that during his fatal attack "the late Senator was a great sufferer from indigestion, and that he really died for the want of an emetic." The truth is, that his digestion was remarkably perfect. He frequently said to me, and to others in my hearing, that he "could eat any and everything with absolute impunity, except lobster, and this article of diet gave him the only attack of indigestion which he ever suffered since the time of his boyhood, when he ate green apples and sour grapes."

Angina occurs, as a rule, very abruptly, and terminates as suddenly as it begins. With Mr. Sumner, slight, shooting pains through the heart, and down the left arm would often precede an attack. Later, he suffered more frequently at night than in the daytime. He was never able to exactly describe the pain. He would say "that it seemed much like the sudden grasp of a cold hand, which gradually tightened, until it felt like a clasp of steel crushing his heart to atoms."

Da Costa makes use of this same expression. He says "its main feature is an agonizing pain in the præcordia, as if the heart were being firmly grasped by an invisible hand, or, as it were, being torn to pieces." He remarks, further on, by way of assisting us to a pathological solution of this mystery, that the immediate conditions upon which the symptoms of the attack depend, lie veiled in obscurity. Other authors say we do not know what the precise causes of this angina are, but we do know that they occasion paroxysms of the most intolerable anguish.

One author goes so far as to say that the pangs of angina are greater than those of child-birth, and much harder to bear, inasmuch as the anticipated result in one case is the addition of a life to the world, while in the other, the probable result is the death of the sufferer. So far as my experience goes, there is no pain which compares with that in angina pectoris, and few cases, if any, combine so much real physical agony with such keen anxiety concerning the final result.

I have not much to say of its treatment, for the reason that we know so little of its causes or pathology. The fact is we do not know what to treat.

Niemeyer says, "it is doubtful if it be in our power to relieve the paroxysms of angina pectoris by any means of medication." He declares that opiates and other narcotics are to be avoided. The weight of authority, however, you will find to be decidedly in favor of morphia in some form, administered in such a way as to accomplish its result most speedily.

Hypodermic injections of some of its preparations have been entirely effective, in my hands, in controlling the pain, and produce, so far as I know, no more disagreeable after-symptoms than when administered for the relief of other painful affections. Sinapisms applied over the region of the heart, friction of cold hands, limbs and feet, hot mustard pediluvia and dry heat, in cases of syncope or collapse, with the usual arterial and diffusible stimuli, combine about all the most useful remedial measures which may be prescribed during an attack.

During the interval, if the cause be known, or can be ascertained, it should be treated upon the same principles which would be indicated were there no angina, and in any case all known aggravating habits or circumstances should be avoided, and great care used to keep up the general tone and power of the circulatory, nervous and digestive systems.

Wood, in the last edition of his *materia medica*, only a few months ago published, speaks of the nitrite of amyl, and of its pretended specific influence in this disease. After referring to its being first suggested by Dr. Lauder Brunton, in an article published in the *London Lancet*, 26 July, 1867, and reprinted from the *London Clinical Society's Reports*, vol. iii., goes on to say, "the pathology of these cases of 'heart-pang' is not definitely made out, and so it seems useless to speculate how the nitrite acts in many cases, but there is now abundant evidence of its value in relieving, almost instantly, agony which has resisted all other treatment."

This remedy was faithfully and repeatedly made use of in Mr. Sumner's case, on the suggestion of Dr. Brown-Séquard, without any amelioration of his sufferings. The bichloride of methyl was also used without any good results. I cannot speak with any positiveness of

the general usefulness of these two remedies, as my experience with them does not extend beyond this case.

The following is a copy of my despatch to Dr. Brown-Séquard, written at Mr. Sumner's bedside :—

{ WASHINGTON, D. C., Senator
SUMNER'S House, 6, A. M.,
11th March, 1874.

{ DR. C. E. BROWN-SEQUARD,
18 East 29th St., New York City.

Mr. Sumner had a very severe attack of his angina at 9, P.M. I applied the remedies heretofore successful, and, after one repetition in half an hour, he became quiet and slept. Then came a fearful attack of terrible pain in the heart, followed soon by great prostration, cold, clammy surface, from which he has not up to this hour revived, and his pulse is growing very weak, hardly perceptible at the wrist. Heat externally applied, and brandy and ammonia internally, do not produce reaction. Tracheal and bronchial râles are very loud, and he is gradually sinking; eyes glassy and vision dim. Mr. Sumner has been your patient for fifteen years or more, and I hope you will come at once to him. Answer.

JOS. TABER JOHNSON, M.D.

A reply came before 9 o'clock, addressed to Mr. Sumner's private secretary, that he should leave on first train.

The following despatch was received by me about 11 o'clock.

{ NEW BRUNSWICK, N. J.,
9½, A.M., 11th March, 1874.

{ DR. J. TABER JOHNSON,
At Senator SUMNER'S House,
Washington, D. C.

Apply galvanism round chest, on insertion of diaphragm.

BROWN-SEQUARD.

The condition of the patient had by this time become so hopeless, that it was decided, by the Surgeon-General and Dr. Lincoln, whom I had called in consultation at the time of telegraphing Brown-Séquard at 6, A.M., to be utterly useless, and as it was thought that the effort of being moved in the bed might prove instantly fatal, it was never used.

MENDACITY OF QUACKS.—The *Pacific Medical and Surgical Journal* speaks as follows:—

If Satan has ever succeeded in compressing a greater amount of concentrated mendacity into one set of human bodies above every other description, it is in the advertising quacks. The coolness and deliberation with which they announce the most glaring falsehoods are really appalling. A recent arrival in San Francisco, whose name might indicate that he had his origin in the Pontine marshes of Europe, announces himself as the "Late examining physician of the Massachusetts Infirmary, Boston." This fellow has the impudence to publish that his charge to physicians in their own cases is \$5.00! Another genius in Philadelphia, of the bogus diploma breed, who claims to have founded a new system of practice and who calls himself a "Professor," advertises two elixirs of his own make, one of which is for "all male diseases" and the other for "all female diseases"! In the list of preparations which this wretch advertises for sale as the result of his own labors and discoveries, is *ozone*!

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. FITZ, M.D.

PATHOLOGY.

"*Waxy Degeneration*" of *Muscular Fibre*.—Dr. Weigl (*Virchow's Archiv*, 1874, p. 253) gives the results of a series of observations concerning this condition, first mentioned by Bowman in 1841.

The term was applied by Zenker, in 1864, to that condition of striated muscular fibre where the contents of the primitive fibril are converted into homogeneous masses of varying form and size, possessing a dull, waxy lustre. These masses are quite brittle, and do not essentially differ, chemically, from the contents of normal muscular fibre. He regarded this change as a nutritive disturbance, produced by fever, and due to the rapid reception of new material by the contractile substance. It was observed in typhoid and scarlet fevers, acute miliary tuberculosis, cerebro-spinal meningitis, articular rheumatism, tetanus, &c.; also in the arms of an insane person who had been confined in the straight-jacket. Other observations, before and since, show that this condition has been seen in almost all febrile diseases, in cases of injury, and in the vicinity of morbid growths.

Its origin has been regarded by some as purely mechanical; others considered that the process consisted in a coagulation of the myosine, with subsequent contraction. The change has also been viewed as merely a *post-mortem* one. Cohnheim, however, found it in the tongue of the live frog twenty-four hours after the local supply of blood had been cut off, and quite independent of any direct mechanical violence.

In Weigl's experiments, the frog was used, and it was ascertained that changes resembling, and probably identical with, those of "waxy degeneration" could be produced in the tongue of the live frog in various ways. Since they could be produced voluntarily and immediately, it seemed evident to him that they could not be regarded as a degeneration or as an inflammation. He further considered them as probably due to a coagulation of the contractile substance of the muscle.

In this connection, the investigations of Popoff (*Centralblatt*, 1873, No. 44) are interesting. He observed the effect of polarized light on muscular fibre. The double refracting substance of the muscular fibre was not altered by the "waxy degeneration." He concludes that this change in infectious diseases is rather an appearance accompanying other signs of inflammation of the muscular fibre than an actual process of degeneration.

Fatty Degeneration of the Heart caused by Anæmia.—It is now long since Virchow called attention to the anatomical peculiarities of that form of anæmia to which the term chlorosis is applied, and within a recent period he has again referred to this matter. He regards it as very probable that regularly in such cases there exists, congenitally, a lack of development of the vascular apparatus, especially of the heart and aorta; so that, at the outset, these are abnormally small, and are subject to pathological changes, fatty degeneration, &c., at a very early period.

Cases have been recorded where an extreme degree of anæmia has arisen and terminated fatally, the only evident lesion being a fatty degeneration of the heart. Gusserow was among the first to call attention to this condition, and reported (*Archiv für Gynäkologie*, 1871, p. 218) five cases where an extreme degree of anæmia developed during pregnancy, apparently without cause, and terminated fatally. In three cases, the heart was found to be fatty degenerated. Biermer soon after called attention to this "progressive pernicious anæmia," and distinctly separated it from simple anæmia. He spoke of its clinical aspects, the pallid skin, the cedematous feet, hands and face, the debility, dizziness and palpitation. There was loss of appetite and occasional diarrhœa. Attacks of fever were noticed, though of no typical character. An anæmic souffle was heard, often so loud as to suggest valvular disease. Capillary hæmorrhages occurred in the retina and skin, more rarely in the kidneys. Minute cerebral hæmorrhages were suggested by slight and temporary paralytic attacks. Dropsical effusions occurred towards the close, and intervals of delirium.

Notwithstanding the excessive anæmia, there was no diminution in the amount of fat. The only anatomical changes were the fatty degeneration of the heart and the hæmorrhages. He considered the frequent presence of intestinal catarrh a cause of the anæmia.

Ponfick (*Berliner Klinische Wochenschrift*, 1873, No. 1) regarded this subject from an anatomical point of view, and called attention to a peculiar form of spotted fatty heart, of normal dimensions and with healthy valves, which occurred more particularly in females, from the twentieth to the fortieth year, and which was associated with a marked degree of anæmia. To this, he applied the term anæmic fatty heart. The alterations of the bloodvessels found by Virchow in chlorosis were at times present, but to a slight degree. Changes in the other organs of the body were of relatively trivial importance and were apparently secondary. The gland cells of the liver, kidneys and stomach presented a greater or less degree of fatty degeneration. Jaundice was frequently present. The total amount of blood was apparently diminished, the red corpuscles decidedly so; likewise the fibrine. Evidence of dropsy was almost constant, as hydrothorax, anasarca or ascites. Ponfick found that these conditions occurred in women with protracted convalescence after delivery, in cases of acute disease, in chronic gastric or intestinal affections with exhausting diarrhœa, and, finally, in persons who had suffered from the loss of blood.

Immermann (*Deutsche Archiv für Klinische Medicin*, 1874, p. 209) regards the disease as different from other forms of anæmia, owing to the lack of a sufficient cause; its excessive degree and union with alterations of the organs of circulation; the occurrence of fever without an anatomical basis; its progressive character and fatal result. He considered that the absence of emaciation was of great value in the differential diagnosis. Ponfick, in several instances, from the extreme pallor of the corpse, or of an organ, was able to anticipate the fatty condition of the heart. Immermann considers the disease to be allied rather to chlorosis and leucæmia, though in no way to be identified with either. It lacks the splenic and glandular swelling of the latter, and is distinct from Addison's disease in that there is no discoloration of the skin. From acute albuminuria, it differs in that there is little or no albumen in the urine.

Its *etiology* is exceedingly obscure. Immermann calls attention to the occurrence of the greater number of cases hitherto reported in a limited district, the canton of Zurich, and lays weight upon this fact, though unable to recognize an essential or specific cause. Other cases have occurred elsewhere, however, at Dresden and Heilbronn, and the *etiological* value of a limited local disposition must be regarded as slight.

Perl (*Virchow's Archiv*, 1874, p. 39) endeavored to prove, experimentally, that *anæmia* resulting from loss of blood would give rise to this form of fatty heart. Dogs were used, a certain number being bled a few times, but to a large extent each time. From the others, small amounts of blood were drawn frequently. The animals of the first series gradually fell into a state of *marasmus*, lost their appetite, became debilitated and finally died from exhaustion. In some instances, *œdema* occurred; there was no evidence of fever. The heart showed generally a fatty degeneration of the muscular fibres, most marked in the papillary muscles. The dogs, from whom small quantities of blood were frequently drawn, recovered, were killed, but their hearts were apparently unaltered.

(To be concluded.)

DR. SNOW, the Superintendent of Health and City Registrar of Providence, expresses, in his report for September, the following views concerning typhoid fever:—

"It is a common opinion, very frequently stated, and very generally accepted, that the foul emanations from sink drains, cess-pools and privy vaults are one of the most important, if not the chief cause, of typhoid fever. My observation does not confirm this theory. The disease prevails much the most in the country, where, if these emanations exist, they are largely diluted by the free circulation of air, while thousands in the city who breathe the foul air from these sources constantly, are *comparatively* exempt from it.

"Again, the cases of typhoid fever in this city are as often in the comfortable and cleanly dwellings as in the poor and filthy. Of the decedents in September, five were of American and four of foreign parentage; of the 667 decedents from typhoid fever in seventeen years—1856 to 1872—there were 370 of American and 297 of foreign parentage.

"Again, I have known some marked instances of severe typhoid fever, evidently caused by decomposing vegetable matter, with no aid of sink drains or other nuisances. In one instance, several families in one house had typhoid fever, apparently caused by thirty bushels of rotten potatoes in the cellar.

"I think that typhoid fever is caused chiefly by the decomposition of vegetable substances, and that for this reason, it is far more prevalent in the country than in the city."

CREMATION A CAUSE OF INDIAN CHOLERA.—The remarkable statement is made, in a recent number of the *Belgie Abeille Medical*, that the immense number of corpses burned by the Hindoos, who are compelled by the worship of Brahma to burn their dead, is the real cause of Asiatic cholera. The poisonous gases generated in this way hover in the air during the day, but at night sink into the lower atmosphere, mixing with the water and various kinds of food, and permeating the lungs in the process of respiration. In Hindostan, the Asiatic cholera is endemic, yet, subject to certain influences in the atmosphere, it becomes epidemic, and then causes ruin and destruction in the remotest countries.—*The Clinic*.

Bibliographical Notices.

The Physiology of Man. By AUSTIN FLINT, JR., M.D., In five volumes. Vol. V. Special Senses: Generation. New York: D. Appleton & Co. 1874. 8vo. Pp. 517.

THE present volume is the fifth and last, and also in some respects the best, of the author's series of physiological text-books. In criticizing it, it is proper to bear in mind a difficulty to which the author alludes in his preface as attending the preparation of such a work in this country, the difficulty, namely, of getting access to original publications, owing to the want of complete libraries of special subjects in America. The danger of quoting at second hand has impressed itself upon the writer, as it must upon every one who attempts to exhaust the literature of any subject. A noticeable improvement on the earlier volumes is to be found in the increased number of citations of German authorities, and though these are often taken from French translations, still it is evident that Dr. Flint has, in preparing the latter volumes of the series, acquired a much greater familiarity with German physiological literature than he possessed when engaged on the earlier part of the work.

The volume begins with a chapter on touch, including a short and rather confused discussion of the muscular sense. According to the author, "the weight of evidence is decidedly in favor of the view that there is no distinct perception of muscular action, aside from general sensibility, that can properly be called a muscular sense." Yet in the next paragraph we read that our appreciation of differences of weight "is chiefly due to the sense of resistance to muscular effort, and has little dependence upon the sense of touch."

The second chapter, on the olfactory nerves and their function, is a good *resumé* of our knowledge of this least understood of all the special senses.

The chapters on sight and hearing, which occupy nearly half the volume, can scarcely be regarded as satisfactory, considering the precision with which these subjects are capable of being treated and *are* treated in such works as those of Helmholtz. Of course, an exhaustive treatment like that of the latter writer is not to be expected in a general text-book; but carefulness of preparation and accuracy of statement may fairly be demanded of a writer who seeks to give instruction on these questions. That the author has failed entirely to comprehend the theory of color as expounded by Young and Helmholtz, is evident from his statement that when colors are mixed on the retina by means of a revolving disc, "the resultant color appears precisely as if the individual colors had been ground together."

The physiology of taste is exceedingly well discussed, and the reasons for accepting the view of Lusanna, that the lingual nerve owes its gustatory function to the anastomosing fibres of the chorda tympani, are clearly and forcibly given.

The last half of the volume is devoted to reproduction and development. The description of these processes is, as a rule, clear and concise, and is illustrated by judiciously chosen figures, the somewhat complicated development of the genito-urinary apparatus being admirably elucidated by means of an excellent plate borrowed from Henle's Anatomy.

The value of the volume is greatly increased by a general index to the whole work.

On the whole, it may be said of this series of text-books that, though they contain a great deal of valuable information on physiological subjects, given in an agreeable and easy manner, yet, owing to a want of familiarity of the author with many of the most important contributions to modern physiology, they cannot be regarded as fulfilling the object which the writer had in view, viz., "to represent the existing state of physiological science."

B.

The Complete Handbook of Obstetric Surgery. By CHARLES CLAY, M.D. Philadelphia. 1874. Pp. 328.

IN this volume are arranged, alphabetically, brief accounts of the various emergencies which may occur in obstetric practice, with short rules for the treatment suitable in such case. The only possible use to which such a book can be put to advantage, is for the purpose of cramming students for examination, for it cannot be conceived that the author would seriously advise a practitioner of medicine to carry such a book about with him in his practice.

For practical purposes, the work is too concise, and the rules presuppose a knowledge of obstetrics which would render the use of the book unnecessary. Imagine, for example, a physician attending a case of labor and his patient is suddenly seized with convulsions. Out of his pocket comes this Handbook, and, under the head of convulsions, he finds this advice:—"If convulsions continue after delivery, try chloroform, opium, sol. antim. tart.; if coma, try leeches, ice-cap, blisters, &c." The patient would stand a better chance, it seems to us, in the hands of a physician who did not depend, in times of emergency, on such a *vade mecum*. Seriously considered, the matter is altogether too condensed and in some respects behind the times, as, for example, the rules for version, presentation of breech (in which latter case, by the way, the author advises the doctor to announce a *cross birth* [?]), &c.

The book may find purchasers among students, but it is to be hoped that the profession will not depend on such pocket-guides to methods of practice.

A Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M.D. Fourth Edition. Philadelphia. 1874. Pp. 801.

THE appearance of the fourth edition of this work so soon after the third, would of itself attest the value which gynecologists have placed upon this admirable treatise on the diseases peculiar to women. The book has been already translated into German, and the present edition is in process of being translated into both French and Italian.

In yielding to the demand for a new edition, Dr. Thomas has not suffered the opportunity to pass of still further adding to the value of a work which has always been highly esteemed by the profession. The present volume, while it contains much that is new, has been kept within the limits of the earlier editions by the omission of portions which later investigations have proved to be either imperfectly or incorrectly stated, and by the condensation of much which is thus greatly improved.

A large part of the book has been re-written, as, for example, the two chapters on Ovarian Tumors and Cysts, which, in this edition, take the place of the four chapters in the edition of 1872, which were devoted severally to Ovarian Tumors, Peri-uterine Fluid Tumors, Solid Tumors of the Ovary, and Composite Tumors of the Ovary. The chapter on Ovariectomy has been altered to correspond with the latest changes in the operation, especial stress being laid on the great value which the author attaches to the use of the drainage tube.

The chapters on misplacements of the uterus have been greatly condensed, while at the same time they contain much that is new and far in advance of the ideas contained even in the third edition. A chapter on Sarcoma of the Uterus has been added, and that on Cancer of the Uterus greatly altered. The influence of ovarian disease in the production of dysmenorrhœa has been recognized by the introduction of a section on Ovarian Dysmenorrhœa.

Many of the illustrations which are to be found in the earlier editions, having been deemed superfluous by the author, have been omitted, while others, though retained, have been greatly improved, as, for example, the substitution of a number of carefully drawn wood-cuts (fig. 42, 66, 75, &c.) in the place of the mere outline drawings. A large number of new illustrations have also been added.

It will therefore be seen from this brief notice of the book that, in many respects, the present edition is a great improvement on those which have preceded it, and which were themselves acknowledged by all gynecologists as among the ablest treatises on the subject.

The Medical Register and Directory of the United States. By SAMUEL W. BUTLER, M.D. Philadelphia. Office of the Medical and Surgical Reporter. 1874. Pp. 854.

THE directory has at length appeared, and is, on the whole, a very creditable work. The amount of labor involved must have been very great, and, as far as we have seen, there are few mistakes. The States are arranged in alphabetical order, and the list of the practitioners in each is usually preceded by that of those in one or more of the larger cities. The medical institutions, hospitals, schools, societies, &c. are briefly mentioned. The geographical and hygienic peculiarities receive attention; and analyses, stated to be reliable, are given of the waters of the various mineral springs.

The only serious criticism we have to make is that the book tells us too much. The list should have been limited to the names of members of the regular medical societies of the respective States. In looking over the list of Boston physicians, we see many names which we are mortified should appear between the same covers as our own.

Surgical Emergencies; together with the Emergencies attendant on Parturition and the Treatment of Poisoning. A Manual for the use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. Philadelphia: Lindsay & Blakiston. 1874. Svo. Pp. 189.

"THIS manual," says the author, "pretends to be little more than a compilation from the best and most recent works on surgery." It is little more. That little more consists, first, of the little arts acquired in hospitals, what we may call *knack*; and, second, in the introduction and discussion of topics, which, however important in themselves, can hardly be called *emergencies*. Such, for example, is the chapter on Lister's antiseptic treatment, a method whose elaborate details have been one of the confessed causes of its non-employment in large hospitals. So, again, a long tabular view of the differential diagnosis of intra- and extra-capsular fractures of the femur, would hardly be consulted by the general practitioner when first called to treat a fall upon the hip, in an old person. We have known old people perish of diagnosis, and succumb to too prolonged manipulation in young and zealous hands. It is very questionable, too, whether Esmarch's bloodless method can be always safely resorted to in haste and in emergencies. The treatment of fractured clavicle by a steel cuirass and screws (vide p. 47), can hardly be called the treatment of emergency, even if a broken collar bone could be classed as a grave accident.

In speaking of treating fractures of the lower extremity by extension by weight, we are told to carry the long extension strips up to the knee, but nothing is said of the necessity of going above the joint to relieve the strain on the articulation. We are also told (p. 174), "the amount of weight must vary with the age of the patient, it being estimated that a pound should be allowed for every year up to twenty."

A delicate child of 12 years, with twelve pounds attached to his leg, below the knee, or even a vigorous youth of 20, with twenty pounds of similar extension, would require more counter-extension, we think, than the author directs, viz., "that the bed should be raised at the foot to prevent the patient being pulled down by the weight." Besides being far more power than is required, this amount of badly applied extension would be productive of great suffering.

The author's treatment of puerperal convulsions is active, but not that usually followed here. We give the paragraph at length:—

"Puerperal convulsions present all the ordinary features of epileptic convulsions. The treatment is: 1. Evacuate the contents of the bowels freely with scammony and jalap; 2. Shave the head, and apply ice, or evaporating ointments; 3. Empty the bladder, or, at any rate, pass the catheter to be sure that it is empty; 4. Wait until the os is sufficiently dilated, and then apply the forceps and deliver the child as soon as possible. Chloroform should be

given, both to allay the violence of convulsions, and also to facilitate the delivery; 5. Give chloral hydrate in thirty-grain doses. If the patient is unable to swallow, administer it by the rectum. If the uterus is rigid, and the labor does not advance, the convulsions being constant, perform craniotomy."

The treatment for cut-throat is judicious. In operating for strangulated hernia, the author always tries first Petit's method of reducing without opening the sac. This procedure is open to grave doubts in the minds of many surgeons. His remarks on the dangers of over-use of the taxis in any rupture and of opening the sac in umbilical hernia are, however, excellent.

This book has many other good points, culled from practical surgeons, such as Hilton's method of opening deep abscesses, &c. It may be very useful as a ready remembrancer to the general practitioner, or even the professed surgeon. But the great fault of all condensed treatises is that some illustrative point is apt to be left out. What is made clear to the mind of the author by conciseness may not be so clear to the average reader. After all, the treatment of emergencies must depend on coolness and on common sense—two qualities which books cannot give. We have often thought that the best lesson taught by country practice is self-reliance. With the possession of that and an education, the general practitioner does not need this book, though it was for him it was ostensibly written.

In the chapter on poisons, we notice some space is devoted to restoring life after chloroform poisoning, but no mention is made of ether—a tacit admission of its safety. The book is handsomely printed and illustrated. The originals of the illustrations of reducing dislocation of the hip by manipulation, we think, would be found in Boston.

D. W. C.

BOOKS AND PAMPHLETS RECEIVED.

History of the Portland School for Medical Instruction. An Address at the Dedication of the new School Rooms. By Israel Thorndike Dana, M.D. Portland. 1874. Pp. 33.

Archives of Dermatology. A Quarterly Journal of Skin and Venereal Diseases. Edited by L. Duncan Bulkley, A.M., M.D. October, 1871. Vol. I. No. 1.

Transactions of the Medical Society of the State of Pennsylvania. 1874. Pp. 454.

Address on Obstetrics; delivered before the Medical Society of the State of Pennsylvania. By Wm. B. Atkinson, M.D. 1874. Pp. 43.

Injuries of the Skull. By C. C. F. Gay, M.D., Surgeon to the Buffalo General Hospital. Pp. 11.

The Building of a Brain. By E. H. Clarke, M.D., Boston. James R. Osgood & Co. 1874. Pp. 153.

The Medical Register and Directory of the United States. By Samuel W. Butler, M.D. Philadelphia: Office of the Medical and Surgical Reporter. 1874. Pp. 835.

SUBCUTANEOUS INJECTION OF QUINIA.—Dr. F. D. Lente, who has recently published a paper upon the hypodermic method of administering quinine, suggests the following mode of preparation for the solution:—

℞. Quiniae disulphatis, gr. cccc.;

Acidi sulphurici, m. xxxij.

Rub up the quinine and acid, which latter should be evenly distributed over the quinine, *very thoroughly*, until the two are *intimately and uniformly incorporated together*, if it requires an hour. Place in a porcelain dish, over a spirit lamp, add distilled water, flʒviij., stir with a wooden spatula until the solution becomes clear. Filter through paper into a bottle, and add *acidi carbolic liq.*, alcohol, aa m. xvi. This solution should remain clear, and free from crystallization, at ordinary temperatures, for any length of time.—*New York Medical Journal*.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 15, 1874.

THE introductory lecture to the regular winter session of the medical department of the University of the city of New York was delivered on Tuesday, September 29th, by Dr. John C. Draper, the subject of his discourse being the Relations of Chemistry to Medicine. The history of chemistry is given, in a short sketch, from the earliest times down to the present day, and the lecturer points out the fact that the various advances in chemistry have been the result of attempts, on the part of the ablest physicians, to render themselves more skilled in the art of healing the sick. The work which is now going on in other countries, in this and other branches of medical science, is alluded to in glowing terms, and the contrast which our own schools afford to the present centres of medical learning and science in Europe is presented so forcibly by Dr. Draper, in his concluding remarks, that we are glad of the opportunity to present them to our readers.

"Such being the present relation of chemistry to medicine, may we not well be ashamed of the scanty provision made in American medical colleges for the cultivation and advance of this science? The poverty of chemical and physiological research among American physicians has made us a by-word and a reproach among the nations of Europe. These nations, which in our youth and arrogance we regard as being effete or moribund, nevertheless have the energy to establish great and costly laboratories for chemical and physiological inquiry and investigation in connection with their schools of medicine. Not only are laboratories and apparatus supplied by government or by private endowment, but the professor is relieved from all concern regarding the necessities of life by a salary which, for the country, affords an ample sustenance. Here, on the contrary, he must not only earn his bread, but furnish his own laboratory and apparatus. Can we wonder that under these conditions there is so little result?

The want of proper facilities and endowment among American medical colleges must, to the thinking mind, be an evidence of the apathy of American physicians to their own true interests. While money is freely given to theological, academic, agricultural and technical institutions of every kind, not a single medical college has as yet received the funds which might enable it to perform its work in a proper manner. Society demands a high standard of its physicians, and punishes their neglect or malpractice with the severest penalties known to the law; yet what has it done to aid either in the advance or diffusion of medical knowledge? While every wild scheme or idiotic ism finds numerous supporters, who are willing to pledge their purses in their behalf, medical colleges, with few exceptions, have an uncertain tenure of life, and even the best are trammelled for the want

of means to do their work properly. It is not that there is a lack of liberality in the community, nor is it a failure to appreciate the properly educated physician. It must be that physicians themselves are at fault, and the community errs because it has not yet been instructed in a matter which is of the utmost importance to its own well-being and prosperity. Feeling the necessity of some action in this matter, the alumni of the medical department of the University of New York have established the nucleus of an endowment for their Alma Mater. That this may increase, and be applied in a manner to aid in the advance of medical science, is the earnest wish of all who have her welfare at heart; and, with the aid of her sons, the time cannot be far distant when this desirable result will be attained, and proper laboratories for chemical, physical and physiological research and instruction be opened freely to all who have been so educated as to avail themselves of their advantages."

We have already called attention to the liberal manner in which the citizens of Philadelphia have responded to a call from the Medical Department of the University of Pennsylvania for aid, and we are glad to see that the profession in New York is alive to the needs of the hour. We hope to find that the success which has attended these two movements will not only open the eyes of the profession to the needs of our medical schools, but also prove to them that they are not without influence sufficient to bring out liberal contributions for the support and improvement of a much needing and much neglected branch of education. It should be the aim of every good medical school not only to disseminate a knowledge of medicine among those who intend to become physicians, but also to contribute its share to the advancement of medical science.

In this country we have been accustomed, and, alas, content, to look upon our schools as machines from which a certain number of raw medical students are turned out annually, and not as centres of medical learning through which our knowledge of the healing art may be continually increased.

This is indeed an important and extensive field for those of our liberal minded citizens to work in who are willing to assist a much neglected department of education.

OF the modern follies, prize babies are specimens. They prove nothing, except the possibility of feeding to excess. You can make heavier pigs in the same length of time, and with much less trouble. At a late Agricultural Fair in Sheldon, Vermont, we are informed that three prizes were offered. The first was fifteen dollars for the heaviest, *apparently* healthy baby. Two other prizes were respectively five and three dollars each. The children to be considered as candidates, we are told, were to be not over a year old, and ten months was to be considered as a better age. The law cannot step

in and put an end to such folly, but common sense ought to. To begin with, the weight of a young child is no evidence either of its future size, in case it lives, or of its ability to withstand disease. If it were, the better way would be to give the prize for the heaviest new-born infant. We know that the smallest children at birth often become the largest in after years. In the next place, the children who are the heaviest at one year of age, are often those who have been fed upon improper food; food which, by the second summer, when dentition is somewhat advanced, the stomach refuses to digest, and either rejects by vomiting, or, worse, by diarrhœa. In the former case, they are lucky, as they are sometimes spared frequent trials of the same. What becomes of this heavy, over-fed, sick baby? If it is fortunate in having common sense put in its mother's way, it may get well. If the same course be continued, why, it may be fortunate enough to die in its first attack of convulsions; or it may be a little less fortunate, and live to brave several attacks; or, again, a short hydrocephalus; or it may, unfortunately, linger through suffering childhood, a sickly youth, and become a burden to itself, and a dyspeptic nuisance to all its friends.

If the officers of County Fairs would offer prizes for the most healthful population to be found in any of their towns, at the age of twenty-one, they might do some service. If they would offer prizes to the towns where there is the least typhoid fever, and the least dysentery, it might be of some use. If they would give any surplus fund as prizes for properly-constructed drains, which would not deposit their filth under their windows; if they would reward their friends for introducing properly-constructed earth-closets, and using them properly; if they would spend their money in pointing out the advantage to health of removing their stables from their houses, or in showing adults how much they might gain in health and strength by feeding on meat and vegetables, instead of pies and doughnuts, the result would be a more healthful country population than we now find.

With all the follies of city life, observation shows us that our city girls are in better condition, as a rule, than country girls in New Hampshire and Vermont. They are more ruddy, they can endure more, are less anæmic, and quite as long-lived.

To return to prize babies: What does size prove, either in the matter of health or life? Absolutely nothing. We can recall, in our own limited experience, enough cases to satisfy us that this statement is correct. A friend says that the offering a prize for the biggest baby is only a joke. Let it be only a joke. But the means taken to get up the play are the means of producing disease and death. There are better ways of affording amusement than trifling with future health and happiness.

WHISKEY AS AN ANTISEPTIC DRESSING.—In a paper on this subject, in the *Philadelphia Medical Times*, Dr. J. L. Suesserott relates the following interesting cases:—

Charles E., aged 60 years, a carpenter, about two years ago had his right forearm terribly lacerated by coming in contact with the revolving head of a planing-machine. The integuments and muscles of the back part of the forearm were torn in shreds; the limb was placed on a splint, the torn tissues were restored as nearly as possible to their places, kept *in situ* by isinglass-plaster, and supported by compresses saturated with strong whiskey. In two weeks from the time of the accident, no suppuration having taken place, the splint was removed and my patient was at his work. About a year after this occurrence, the same patient had the back of his left hand thrown into the same machine. The result was that the articular ends of the second and third phalanges of three of his fingers were entirely knocked out, leaving the fingers hanging by the flexor tendons. Deeming it impossible to save more than a stump of the hand, I was about to remove the dangling digits, against which procedure the patient strongly protested. Sympathizing with the now twice unfortunate man, and desiring to let the realization of the full extent of his maimed condition break upon him gradually, I procured three small splints, upon which I carefully laid the, as I was fully persuaded, lifeless fingers, secured them with isinglass-plaster, and placed the whole hand upon a heavy straw-board splint, with the full assurance, in my own mind, that even with the deodorizing effect of whiskey, by the next day my very hopeful patient would be satisfied of the propriety of their removal. The part, or, I might more truly say, the whole hand, was kept saturated with my favorite fluid for external use, and, much to my surprise and gratification, on the following day I found the circulation re-established. The fingers were kept on small splints to prevent too much shortening. Granulations repaired the lost soft tissues almost entirely, and, the metacarpo-phalangeal articulation not having been injured, I had the extreme pleasure, at the end of four weeks, to see my patient, who, by the way, is a man of strong nerve, hard at work, with a very useful hand.

About the time of the first accident to this patient, Charlie W., a lad of about 12 years of age, ran into a mowing machine. His left foot was cut off just at the top of his shoe, and the right one, it having been elevated in the act of running, was taken off through the tarsal bones. Assisted by Dr. E. N. Sensery, of Chambersburg, Pa., I shortened the bones of the left leg so as to procure sufficient covering, but we both concluded that by the removal of the cuboid bone of the right one we might hope to save the heel, and make the limb more useful; leaving it as in Chopart's or Symes's amputation. Even after the use of strong ligatures and contracting bands, we were not able to bring the tissues together, but were compelled to leave a surface of two and a half or three inches entirely exposed. Into this we packed patent lint, well saturated with whiskey, satisfied that, with some suppuration, we might hope for a full repair of the parts. Suffice it to say that in an incredibly short space of time the parts were healed, without any want of covering to the stumps, and with the loss of not more than *one fluidounce of pus from both limbs*. Of this latter fact we are confident, as we did all the dressing ourselves.

REVILOUT ON THE DIFFERENTIAL DIAGNOSIS OF DISEASES OF THE STOMACH.—The *London Medical Record* of Sept. 23, 1874, contains an account of an article in the *Gazette des Hôpitaux* on gastric diseases. Dr. Revillout criticises the statements of Trousseau and of Cruveilhier regarding these maladies, and shows that these authors are often at variance with each other and that neither is perfectly accurate. Dr. R. says that the symptomatic physiognomy, or totality of symptoms, in cancer and in simple ulcer of the stomach, is in general extremely different. When the cancer is limited to the stomach itself, we do not generally meet with dorsal pain, even when vomiting has been going on for some time, and the patients suffer acutely. This

is true, at least for the major part of the duration of the disease. Two typical cases of cancer, and three of ulcer of the stomach, are reported. In both classes of cases, there was vomiting, but one kind had no pain in the back; the patients complain of the stomach only, and there their sufferings are very acute, but there is no tendency towards the pain in the back; these are the cases of cancer. The others have dorsal pain quite as severe as the epigastric, and on the same plane with this—or, to speak more accurately, the two pains are really one and the same—and the patients compare the pain to dragging, tearing or bruising; these suffer from ulcer of the stomach. Unfortunately, all cases are not so simple or so easy to diagnosticate. Sometimes we meet with complications well calculated to lead us into error. But in such cases it is important not to lose sight of essential facts and first principles. When symptoms which appear contradictory are associated, they should at least cause us to hesitate and suspend our diagnosis, waiting for the judgment of time. We have a striking instance in the following case. A woman, aged sixty-three years, entered the wards at the Charité, January 12, 1874. She had for some time vomited black stuff, and shortly afterwards a hard, uneven tumor, about the size of a hen's egg, and not very sensitive to pressure, was discovered a little above the navel. Her stomach was dilated, and her skin had an icterode cachectic coloration, like that of cancer. She stated that, about four months previously, she had felt violent pains in the stomach. She soon began to vomit, first food, and then the vomit changed its character to a sooty or coffee-ground appearance. The gastric pain, starting from the epigastrium, and extending to the spine at the same level, had grown worse. M. Revillout had often asked the patient about this pain, and her answers were always consistent. The hæmetamesis continued; food was rejected soon after being taken, milk only being tolerated. Her emaciation increased rapidly; the sooty vomitings were more frequent; she was obstinately constipated; her appetite diminished, her weakness increased. She died July 21st. At the necropsy, the pyloric end of the stomach was found indurated, and formed the tumor. The contiguous parts, epiploon and transverse colon were firmly adherent, and were much indurated. On opening the stomach, an ulcer was found at the pylorus, about one inch and five-eighths in length, following the course of the pyloric canal. This ulceration was truly cup-shaped. The mucous membrane was lost at its edges, and its floor was formed by the transverse fibres of the stomach, which were themselves wanting at its deepest part, where the longitudinal muscular fibres became visible. This ulcer was solitary. Around it, the hypertrophied walls of the stomach formed a tumor, which had no characteristics of cancer, either to naked eye or microscopic. It cut firmly, was hard, smooth and shining, but no juice could be squeezed from it. In this case, the diagnosis of cancer of the stomach seemed reasonable. There was the tumor and the icterode cachexia, which are deemed so characteristic. It is true that hæmorrhagic (anæmic) cachexia may simulate the cancerous. But how could we explain the tumor? Cruveilhier mentions a case, noticed *post-mortem*, in which a simple ulcer of the pylorus had produced around it a thickening sufficiently marked to simulate a tumor on percussion. In the case we have been considering, the patient was not cancerous; her dorsal pain was, therefore, not exceptional, but confirmed the rule given above, for this, and this only, allowed the truth to be guessed at—that we had to deal with a simple ulcer, and not with cancer of the stomach.

Correspondence.

PROVIDENCE, R. I., October 6, 1874.

MESSRS. EDITORS,—As it is due to Dr. Barnes, permit me to correct the mistake which makes my letter, published page 264, read “not ever succeeding with his plan of restoring the index,” instead of “not *even* succeeding,” &c. I originally hit upon the same plan as he proposes, and succeeded by it several times and several times failed, when it occurred to me that it would

be safer and easier to shake the mercury into the tube in the way I described.

Let me add that I feel sure that *any thermometer can be made self-registering* in this manner if due care is used and correction made for the space between the index and the remainder of the column of mercury in the tube. As self-registering instruments are at a premium, this may be of interest to others.

Yours truly,

CHARLES H. LEONARD, M.D.

Obituary.

JEFFRIES WYMAN.

[Died Sept. 4th.]

THE wisest man could ask no more of Fate
Than to be simple, modest, manly, true,
Safe from the Many, honored by the Few;
Nothing to court in World, or Church, or State,
But inwardly, in secret, to be great;
To feel mysterious Nature ever new,
To touch, if not to grasp, her endless clew,
And learn by each discovery how to wait;
To widen knowledge and escape the praise;
Wisely to teach, because more wise to learn;
To toil for Science, not to draw men's gaze,
But for her lore of self-denial stern;
That such a man could spring from our decays,
Fans the soul's nobler faith until it burn.

From the Nation, Oct. 8th.

J. R. L.

Medical Miscellany.

HYDROPHOBIA is prevailing in Madrid, nine or ten deaths being known to have occurred at latest date.

WE are happy to learn that the *Chicago Medical Journal* will be enlarged after the present year.

RESOLUTIONS OF RESPECT to the memory of the late Dr. Jeffries Wyman were passed at the meeting of the Councillors of the Massachusetts Medical Society, held last Wednesday.

CATARRH SNUFF.—Dr. E. C. Mann, of New York, recommends the use of a snuff composed of equal parts of finely pulverized camphor and white powdered sugar as an adjuvant to the various injections and sprays employed in the treatment of nasal catarrh.—*New York Medical Journal*.

TRACHEOTOMY IN AN INFANT.—A case is reported in the *Journal de Thérapeutique* (1874, No. 15) in which tracheotomy was performed, on account of croup, upon a child only fourteen months old, the operation resulting in immediate relief and speedy recovery.

SMALLPOX INOCULATION IN IRELAND.—The practice of smallpox inoculation, though obsolete in other countries, is still kept up in Ireland, notwithstanding the heavy penalties inflicted upon the inoculators when detected. Numerous cases of variola have recently come to the attention of the medical officers in the County Mayo, and as the parents of those affected decline to reveal the names of the inoculators, it has been resolved to prosecute the parents themselves.

BROMIDE OF AMMONIUM IN ACUTE ARTICULAR RHEUMATISM.—After a trial of more than a year, Dr. J. M. DaCosta is convinced of the value of the bromide of ammonium in the treatment of acute rheumatism. He thinks the drug relieves pain, acts generally upon the skin, keeps up the action of the kidneys and lessens the tendency to internal inflammation. He gives it in scruple doses every three hours.—*Medical Record*, Sept. 15, 1874.

LANCING THE GUMS.—Dr. James Finlayson concludes a paper in the *British Medical Journal* (Sept. 19, 1874) on the alleged dangers of dentition, and the practice of lancing the gums, with the statement that the chief danger of the wholesale use of the gum-lancet lies in its embodying in practice a theoretical view of the ailment, and so tending to close the mind against further inquiry into the diagnosis, etiology and treatment of infantile disorders.

ECHINOCOCCUS IN THE MAMMA.—Dr. Lamenstein (Inaugural Dissertation, Göttingen, 1874) reports a case of the above rare affection occurring in a woman aged 48 years. The tumor, after a growth of many years, attained an enormous size, and finally opened spontaneously. The woman had given birth to nine children, and lactation had never been interfered with, only the affected breast secreted a less amount of milk. The wound healed, and the woman made a good recovery, though at a later date a similar, though smaller, tumor appeared upon the lower edge of the pectoralis major.

EXCISION OF A PORTION OF THE SPLEEN—RECOVERY.—Dr. H. C. Markham, of Winthrop, Iowa, reports (*Medical Record*, Sept. 15, 1874), the removal of almost the entire spleen of an Indian, who had been wounded in an altercation with a white desperado. When called to the wounded man, he found the spleen, to the extent of three-fourths of its volume, projecting from a wound in the abdomen. The organ was already partially sphacelated from constriction at the edges of the wound and the extreme heat of the season, about thirty-six hours having elapsed since the infliction of the wound. The projecting portion of the spleen was removed by a common bistoury to nearly a level with the abdominal walls. The hæmorrhage, which was excessive, was with difficulty controlled. After applying cold-water dressings and giving stimulants, the patient was left to die, as Dr. Markham supposed. About a year afterward, the Indian presented himself at the doctor's office, and, drawing aside his blanket, exhibited the cicatrix of the wound. His only statement was "Indian heap no run."

MARRIED.—In this city, Oct. 5th, in the South Congregational Church, by Rev. E. E. Hale, Clarence J. Blake, M.D., and Frances, daughter of George Hughes.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and towns for the week ending October 3, 1874.

Boston, 150; Worcester, 10; Lowell, 24; Milford, 4; Cambridge, 18; Salem, 6; Lawrence, 16; Springfield, 13; Lynn, 18; Fitchburg, 4; Newburyport, 2; Somerville, 10; Fall River, 25; Haverhill, 3; Holyoke, 8. Total, 311.

Prevalent Diseases.—Cholera infantum, 59; consumption, 47; typhoid fever, 17; dysentery and diarrhœa, 17; whooping cough, 8; pneumonia, 8.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 10, 160. Males, 71; females, 89. Accident, 4; apoplexy, 3; disease of the bladder, 1; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 2; disease of the brain, 5; cyanosis, 1; cholera infantum, 19; cholera morbus, 1; consumption, 27; convulsions, 3; croup, 1; debility, 3; diarrhœa, 4; dropsy of the brain, 2; dysentery, 3; diphtheria, 2; diabetes, 1; erysipelas, 1; scarlet fever, 1; congestive fever, 1; typhoid fever, 10; gastritis, 1; hernia, 2; disease of the heart, 10; hæmorrhage, 1; intemperance, 3; jaundice, 1; disease of the kidneys, 2; congestion of the lungs, 2; inflammation of the lungs, 1; marasmus, 14; old age, 1; paralysis, 2; premature birth, 4; peritonitis, 1; puerperal disease, 2; purpura hæmorrhagica, 2; scalded, 1; tetanus, 1; teething, 2; tabes mesenterica, 3; uterine disease, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 76; between 5 and 20 years, 13; between 20 and 40 years, 33; between 40 and 60 years, 20; over 60 years, 18. Born in the United States, 115; Ireland, 32; other places, 13.

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THURSDAY, OCTOBER 22, 1874.

[No. 17.]

Original Communications.

A CASE OF EMPYEMA TREATED BY FREE INCISION.
DEATH. AUTOPSY.

By J. T. BOUTELLE, M.D. Harv., of Boston.

APRIL 5, 1874.—C. P., aged 19, pattern maker. Has always been healthy until a year ago, when he caught a severe cold, which lasted a long time, and was accompanied with pain in right chest. No hereditary disease in family. After recovering from this cold, went to work again, and was in pretty good health until about three months ago, when he took cold after exposure, and had severe pain in right side, sharp and darting at first, more dull afterward. At this time, began to be feverish, and to grow weak, having pain in right chest nearly all the time; his appetite and strength failed rapidly. He continued to grow worse, and took to his bed about six weeks ago, and has remained there ever since. Emaciation has been rapid, and cheeks marked with hectic flush. During the past two weeks, he has been sweating profusely, night and day. He has had beef-tea, chicken broth, &c., and whiskey to the amount of a pint daily.

The case has been considered acute phthisis, and treated as such. I saw him to-day, for the first time. He lies in bed upon his right side, breathing with difficulty. He is greatly emaciated, the hip bones and shoulders being covered only by skin; there is a bed-sore upon right hip, and another upon right shoulder. He is too weak to move without help. Coughs a great deal, raising large quantities of frothy pus and mucus. Physical signs:—Left lung hyper-resonant, with exaggerated respiratory sounds. Left lung, as far as I could get at it, was perfectly flat over the whole front and side, with entire absence of respiratory sounds. Any attempt to turn him upon his back, or upon the left side, brought on such excessive dyspnoea and coughing that I contented myself with a slight examination. The fact of his lying continually upon the right side made me suspect that there might be fluid there, but I did not verify my suspicion, and rather inclined to the belief that the air cells of the right side were completely blocked up with tubercle. Ordered sponging frequently with rum and alum, and

R. Calcis phosphat. gr. xv. every night.

R. Acidi hydrocyan. gtt. j.

Ext. pruni virg. fluidi ℥j. every four hours.

Diet to be as nourishing as possible; chiefly, strong beef-tea in small quantities frequently. Milk punch, containing two fluidounces of whiskey, every four hours; also whiskey and water occasionally.

April 12th.—Sweating ceased entirely three days ago. For the past two days, has been delirious, tossing about and talking incessant-

ly. To-day, is more quiet, though still excited and talkative; face flushed, skin hot, pulse 120, of moderate strength. Physical signs the same as on last visit. Above the right nipple, is a rounded swelling, not tender, and the tissues between nipple and axilla are swollen. Continue treatment.

April 15th.—Found patient moved from the bed to the sofa, and had an opportunity to make a more extended examination of thorax. He had just coughed up about a pint of foetid, brown pus mixed with mucus. As he lay on the right side, I found tympanitic resonance over a small portion nearest the sternum, the line of flatness commencing about the middle of right clavicle, and passing directly downward. Very feeble respiration could be detected in the resonant portion. There was a blowing sound beneath the swelling above mentioned, and upon pressing it with the fingers, an emphysematous crackling was heard. The left lung was the same as on the first examination. From these signs, I concluded that there was a large collection of foetid pus in the right pleural cavity, and an opening in the lung itself near the apex.

Pulse 120, and of moderate strength. Has diarrhoea. As he continued to be very restless, and at times delirious, constantly talking and tossing about, I diminished the allowance of whiskey to four ounces per diem in milk punch.

April 18th.—Consultation with Dr. M. E. Webb. Signs same as yesterday. The bulging between ribs was very marked, and fluctuation could be detected. The excitement is rapidly diminishing, and he takes a fair amount of beef-tea, milk, &c. Slight diarrhoea continues. Pulse 116. Temp. 101.8°. Resp. 32.

April 19th.—With Dr. Webb's assistance, tapped with aspirator between seventh and eighth ribs, about two inches from the lower angle of scapula toward the middle of the ribs, and removed three pints of brown, foetid, thick pus; the pus was very frothy. He had coughed up a pint this A.M., before the operation. I had intended to make a permanent opening at this visit, but his excessively feeble condition and nervousness decided me to try the aspirator first, in hopes that he would gain strength and courage to undergo a severer operation. After the pus was removed, he lay upon his left side for the first time in five weeks. In about half an hour, I applied the stethoscope, and found feeble respiration over the greater part of the lung.

April 20th.—Slept pretty well last night. About 3, A.M., had a chill, not very severe, lasting a half hour. This has not occurred again, and he feels quite comfortable. Pulse 106. Temperature 100.2°. Respiration 25. Cough not troublesome. Has taken some beefsteak, and three or four cups of milk this forenoon. Bowels still rather loose.

Resonance pretty good over most of lung; flatness over a portion of the most dependent part, where there is no respiration, and a slight bulging of intercostal spaces. Emphysematous crackling upon pressing tissues between nipple and scapula. Continue nourishing treatment.

April 22d.—Passed a comfortable day yesterday; ate beef-steak and stewed pigeon. Diarrhoea ceased. This A.M., had a fit of coughing, and raised a considerable amount of brownish pus. Since then, has felt weak and nervous. Has a good appetite, and has had steak and beef-tea to-day. Lies upon back without discomfort, and has maintained this position all the forenoon. Pulse 116. Temperature 99.6°.

April 23d.—Passed a pretty comfortable night. Has been coughing a good deal this A.M. Is prepared to undergo the operation for permanent drainage. *Operation*, Dr. M. E. Webb assisting. A knife was passed between the eighth and ninth ribs, about an inch to the right of the lower angle of scapula, into the pleural cavity, and the incision slightly enlarged on withdrawing the blade. No pus escaped. An India-rubber drainage-tube was then pushed in about five inches, and secured by straps of adhesive plaster. The pump of the aspirator was attached to the tube, but no pus could be drawn through. After injecting a little warm water, without helping matters, the tube was drawn out, clots removed from its calibre and re-introduced, but still no pus could be drawn through it. Tube was removed, and a canula introduced, but with no better result. As the patient was growing very weak, crying out with pain, and threatening to faint, the canula was removed, and a poultice applied over incision. A little whiskey and water was given. He coughed incessantly, without raising anything. Pulse 116. Temperature 100·6°.

R. Morph. sulph. gr. $\frac{1}{2}$ statim, to be repeated in half an hour, if coughing continues. Also, if he has a chill to-night, to have morph. sulph. gr. $\frac{1}{2}$. Continue supporting treatment.

April 24th.—Had a slight chill about 2, A.M., lasting half an hour. Has taken a large amount of beef-tea and mutton broth since yesterday. Pulse 105, steady. Temperature 99·8°. No pain. Scarcely any pus has exuded into the poultice. The area of resonance does not seem to diminish. There is dulness, and absence of respiratory murmur over an area bounded by lines drawn directly downward from the anterior and posterior edges of axilla, as he lies "canted" considerably toward right side. I can find no evidence of solidification other than that caused by the fluid.

April 25th and 26th.—Condition remains about the same. Pulse 110. Temperature 99·6°. Has had no more chills. Has had two fits of coughing, each lasting about an hour, and at each attack he raised nearly a pint of frothy, brown pus. He takes plenty of nourishment, beef-tea, steak, oysters, &c., and egg-nog, containing about an ounce of whiskey, three times a day.

April 27th.—This A.M., about 11.30, found him coughing incessantly, without expectoration. Was told that this had been going on for two or three hours. He was greatly exhausted and distressed. Had not slept much during the night. Gave morph. sulph. gr. $\frac{1}{2}$, which relieved the cough in a half-hour. I decided to make an incision between the ribs large enough to allow free exit to pus, and also to administer ether, which I had been afraid to do before, on account of his feeble condition, and the absence of respiration on the right side.

April 28th.—*Operation*, Drs. Webb and Everett assisting. Ether was carefully given by Dr. Webb, and patient was wholly under its influence in twenty minutes, breathing easily. I then thrust a trocar between the seventh and eighth ribs, at the point where I had found pus on the 19th inst. As pus began to flow through the canula, I removed it, and made an incision three inches long through the skin, the point of puncture being at the middle of the incision. A careful dissection was carried down to the pleura, and the pleural cavity opened by an incision of two and one-half inches. About three pints of fetid pus escaped. On examination with the finger, a long, smooth line of

adhesion was found a few inches below the incision, passing downward and backward, evidently the bottom of the sac of the abscess. Upward, the finger could be moved freely about without finding any adhesions. The patient recovered from the ether very well. Before operation, pulse 116; temperature 99·6°. After operation, pulse 120; temperature 99·6°.

As the pulse was quite feeble, an ounce of whiskey was given in water, and the pulse soon increased in strength. There was but very little nausea, and but slight coughing. Poultice to be applied to wound. Whiskey, $\mathfrak{z}\text{i}$. every hour until next visit.

April 29th.—Had a restless night. Complaints of pain in wound. The bed-sore upon the right hip seems to cause him much pain, although it is now quite small. He has taken a pint of strong beef-tea since last record. The discharge was very free during the night, and is now gradually diminishing. Wound looks healthy, but the tissues below it are swollen and tender. Has had no chill. Coughed some last night, but this ceased on taking morph. sulph. $\frac{1}{4}$ gr. Coughing causes excessive pain in wound. Continue treatment as regards diet. For stimulant, to have egg-nog, containing half an ounce of whiskey, three times a day. Pulse 106. Temperature 100·8°.

April 30th.—Had a restless night, coughing a good deal, raising pus. Appetite good; eats beef-steak, and digests well. The discharge from wound is abundant, and not fetid. Pulse 116, not very steady. Temperature 100·4°.

May 1st.—Discharge abundant. Pulse 100, steady. Temp. 100·3°.

May 2d.—Condition about the same. Appetite ravenous. Pulse 105. Temperature 100·4°. Omit morphia entirely. \mathcal{R} . Chloral hydrat., gr. xv. nocte.

May 7th. Gets some sleep every night after taking the chloral. Appetite continues good, and he takes abundant nourishment. Cough troubles him very much, and he raises brown pus, mixed with sticky mucus. For the past two days, I have been trying to introduce a drainage-tube, for the purpose of syringing out the cavity, but cannot find the opening, which seems to have granulated over. I suspect there is a collection of pus in the thorax, which does not escape, and which is keeping up the temperature and causing cough. The temperature, since last record, taken daily, has been 100·2°, 100·2°, 100·3°, 100·4°, 100·6°. The pulse has ranged between 105 and 120.

May 8th.—Coughs badly, but seems to be gaining strength. Can raise arms above his head, and lift a cup to his lips. Bed-sore on shoulder has healed, and that on hip very small. I cannot find the opening into the thorax with the probe, although the wound discharges freely into the poultice, the pus being light-colored, and without much odor. Pulse 120. Temperature 100·6°.

May 9th.—Patient etherized by Dr. Webb. On introducing the finger, I found the opening through the pleura entirely closed by granulations. The union was easily broken up with the finger, and an opening made the length of the original incision. Not much bleeding. About a pint and a half of excessively fetid pus escaped. A rubber tube was then inserted, and the cavity thoroughly syringed out with warm water, containing a trace of carbolic acid. The tube was then fastened in by adhesive strips. Patient rallied well from the ether. Pulse, before ether was given, 122. Temperature 100·6°.

8, P.M.—There has been an abundant discharge from the wound. Patient has been restless all day, thirsty and hot. No chill. Coughs a good deal. Pulse 124. Temperature 103·2°.

R. Spts. æther nitrosi, ʒss. in water every four hours. May drink cold water freely, and suck cracked ice. To have a glass of ale during the night, and a pint of beef-tea.

May 10th.—Had a pretty fair night after taking chloral, gr. xv. Pus discharging freely through tube and incision. No chills. Had beef-steak and egg-nog for breakfast. Pulse 120. Temp. 101·2°.

May 11th.—Improving. Appetite very good. Washing out the thorax with warm water relieved his cough somewhat. Pulse 116. Temperature 100·6°. *R.* Quiniæ sulph., ferri sulph., āā gr. ij.; syr. aurantii, gtt. xx.; aquæ ʒi., in water three times a day.

May 16th.—Seems to gain strength, but pulse continues rapid, ranging between 118 and 120. Temperature, since last record, has been 100·2°, 100·6°, 100·6°. To-day, at 3, P.M., I find him weak from excessive coughing. Expectoration consists of frothy mucus, without pus. Pulse 124. Temperature 103.

May 17th.—Consultation with Dr. H. I. Bowditch. Dr. Bowditch thought there was a chance of saving the patient, provided the appetite continued good. He advised having the patient sit up in bed occasionally, and the internal administration of fusel oil. The thorax was washed out as usual, the tube removed, and exploration made with a catheter, which passed in about eight inches without meeting any obstruction. The tube was then replaced. Patient coughs a great deal, and this is most relieved by morphinæ sulph., gr. $\frac{1}{2}$ twice a day. The thorax is washed out with warm water every morning. Pulse 124. Temperature 102·4°.

May 18th.—Pulse 108. Temperature 101·3°. Propped him up into a sitting posture while washing out thorax, and he remained so for about fifteen minutes without feeling faint. Omit the iron and quinine. *R.* Fusel oil, gtt. v.; syr. simplicis, ʒi. M. three times daily.

May 19th.—Pulse 118. Temperature 102·2°. Sat up in bed, with a chair for support, for half an hour, during which time thorax was syringed out.

May 20th.—Pulse 120. Temperature 103·1. Coughs badly, and there are streaks of blood in the sputa. Appetite not so good as usual. Omit fusel oil, and take iron and quinine in solution āā gr. ij. thrice daily as before. Thorax to be syringed out twice a day.

May 21st.—Pulse 124. Temperature 104°. Had been coughing for two hours before visit.

May 25th.—Not doing well. Pulse, since last record, has been 120 to 124. Temperature not taken, on account of thermometer breaking. Complains of pain, on coughing, at middle of seventh rib on both sides. Physical signs remain about the same as last record. The family tell me that there has been a sudden increase in the amount of pus discharged. This A.M., they found the rubber bag, which was attached to the tube to catch the pus, and which held about three ounces, full and running over, and about a quart of pus in the bed. Patient is losing appetite gradually, and there is slight œdema of feet and ankles. This A.M., a slight diarrhœa commenced. Ordered to omit all attempts at sitting up, and thorax to be syringed three times a day.

May 26th.—Pulse 128. Temperature 101·3°. Discharge excessive,

amounting to about a pint in twenty-four hours, and very foetid. Appetite still failing. Edema of feet and legs increasing. No diarrhoea. Abdomen swollen and tympanitic. No pain in abdomen. Not much cough. Has a pyæmic look.

May 27th.—Pulse 134. Temperature 100·2°. Complained of great pain at a point near and a little below incision, on being syringed out this A.M. The area of dulness has increased below line of incision, and moist râles are heard all over lower half of front (right side). Also a few moist râles on left side, but no dulness on percussion. He took about half a pint of beef-tea last night, and a bowl of bread and milk this A.M.

May 29th.—As the drainage-tube seemed to cause much pain, it was removed to-day, and the cavity syringed by passing the nozzle of Davidson's syringe through the wound. He has no chills, but pulse keeps high and unsteady, and his appetite fails more and more every day.

He continued to grow worse every day, the œdema of feet and legs increased, and appetite failed completely. On June 7th, he complained much of pain in left side, and on that day diarrhoea set in. The respiration became more and more embarrassed; on June 9th, he lay in a semi-stupid state, from which he could be aroused without difficulty; he died on the morning of June 10th.

Autopsy six hours after death. Body very much emaciated. Rigor mortis not very marked. On dissecting back the skin over thorax on the right side, the intercostal muscles between the five upper ribs were found atrophied to a membranous condition, and perforated with many apertures, allowing air to escape beneath the pectoral muscles, which accounted for the emphysematous swelling before mentioned. The heart was somewhat flabby, otherwise normal. In the left pleural cavity was about a pint and a half of clear serum. The left lung was adherent posteriorly, not very firmly, from the apex, about a hand's breadth downward. It contained, at its apex, a cavity, containing pus, about the size of a filbert, and having a well-marked sac wall. In this vicinity, the lung was congested. No traces of tubercle.

On the right side, the removal of the sternum had opened the cavity anteriorly. It was, in diameter, about three fingers' breadths, enlarging a little as it passed backward behind the lung, and extended from the upper border of the fifth to the lower border of the eighth rib. The lung was compressed into a half-moon shape, the greater part being above the cavity, and firmly adherent to the side of the thorax; the middle portion was adherent to the pericardium, and a small portion was below the cavity, adherent to the diaphragm and wall of thorax. The diaphragm was pushed very high up, its apex being on a level with the fifth rib anteriorly. The adhesions of this lung were very firm, and the lung had to be dissected out. When removed, it was slightly larger than the heart, and pretty firmly hepatized. No trace of tubercle found.

The liver was considerably enlarged. On attempting to remove it, adhesions were found between the right lobe and the diaphragm; these were easily broken with the finger, and the liver removed. In the posterior part of the right lobe were two abscesses, about the size of an English walnut, and, an inch deeper in the substance of the lobe, two other similar ones. A fifth, rather larger than these, existed in

the anterior portion of the lobe. The abscesses had a ragged appearance, were lined by pretty firm walls, and contained dirty, greenish pus. Gall bladder was entirely empty. Kidneys normal. Rest of organs not examined.

A probe was passed through the small opening, which remained after the second operation, and was seen to come upon the lowest part of the diaphragm, but no opening could be found between the pleural cavity and that of the abdomen.

Among the details of this case, I should like to call attention to the following points:—

The condition of the patient; the long duration of the disease, the excessive sweating, painful bed-sores, and general prostration rendering it a most unfavorable case for operation.

The immediate relief and gain in strength which followed the evacuation of the pus, the general condition steadily improving up to about two weeks before his death.

The rapidity with which the large incision granulated together, which shows the necessity of guarding against this at the time of operation, by stuffing with lint, or inserting tubes.

The absence of tubercular deposit in the lungs after so much inflammatory disturbance.

The point selected for operation. At the second operation, when no pus could be evacuated, the tube was thrust in four or five inches, entering between the eighth and ninth ribs, about an inch external to the lower angle of the scapula. It probably passed below the small portion of lung adherent below the abscess and ascended upon the diaphragm. The autopsy showed that this point was nearly two inches too low to enter the cavity. The physical signs were the same as those higher up, and there was, apparently, bulging of the intercostal spaces. This fact shows that it is not *always* safe to enter the thorax very low down. The incision made at the next operation was visible for about two-thirds of its extent, as the patient lay upon his back, and could be easily reached without disturbing him.

The abscesses in the liver did not appear to be very recent, being lined by well-marked walls, but as they were not connected with each other, and as no fistulous track appeared, leading from them to the pleural cavity, I suppose that they were caused by septic poisoning. The general symptoms and appearance of the patient during the two weeks previous to his death were similar to those of pyæmia, although there were no successive chills.

FOUR AT A BIRTH.—A negro woman in Berlin, Ind., aged 40, recently gave birth to four well-developed children, three girls and one boy, one of the girls being still-born. There were two placentæ; three of the children were attached to one, while the dead one was attached alone to the other. No physician was present during her labor.—*Philadelphia Medical Times*.

MONSTROSITY.—At a recent meeting of the *Académie de Médecine*, M. Blot reported a case of monstrosity by the absence of the head, the chest, the greater part of the abdominal organs and the muscular system. The bones of the pelvis and the lower limbs, covered with skin, appeared to constitute the entire fetus.

Clinical Lecture.

OVARIAN CYST.

BY CALVIN ELLIS, M.D.,

Professor of Clinical Medicine in Harvard Medical School; Visiting Physician to the Massachusetts General Hospital.

THE patient is a married woman, 53 years old, who has always enjoyed good health and has borne four children, the youngest of whom is 22 years of age.

Twenty years ago, she first noticed a small *swelling in the right side of the abdomen*. This increased but little after the first year, but the *abdomen began to swell generally*, and has continued to enlarge up to the present time, particularly within the last three months. She complains of no pain or other abdominal symptoms, except distention. No *thoracic* symptoms have attracted attention. The *appetite* has been poor. The *bowels* have generally been constipated. *Micturition* has been normal, as well as the appearance of the *urine*. The *catamenia* were regular until she came to this country, twenty years ago, when they ceased, and have not since returned. During the past year, the *weight* has diminished and the *strength* has failed. She *sleeps* sufficiently well. The *tongue* is natural, the *pulse* 108.

We have here another history of *abdominal enlargement*, without such accompanying symptoms as enable us to form any opinion whatever about its exact seat or character. The fact that the *catamenia ceased at the age of 32* has no special significance, in the absence of any constitutional disturbance. The menopause has been noticed at a much earlier age than this. Although there may have been some special cause in our patient we do not need such, and nothing indicates it in the history which she has given us. We can only say that the disease is *chronic*, and use our own senses to carry us farther.

We must, therefore, *examine the abdomen* at once to obtain material for a differential diagnosis. On *inspection* [see diagram, next page], we are at once struck with the marked *enlargement* which involves the whole abdomen, though the right lumbar region is particularly prominent, and there are *other irregularities of surface* in the lower half in the neighborhood of the umbilicus. The large prominence is perhaps six inches in diameter, while the others, in size and form, suggest a loop of intestine. But the eye can only suggest. We may say, however, that obesity cannot be the cause of the change of form; we may also say that these local prominences are not connected with any affection of the parietes themselves, that they are probably to be traced directly to the disease which has caused the general enlargement. The tension of the abdominal walls is such as to lead to the belief that the change of form is owing to *some affection within the peritoneal cavity*. I will also call your attention to the *undue fulness of the superficial abdominal veins*. This is frequently seen when the circulation through the deep-seated veins is interfered with, and the pressure of some large body in the peritoneal cavity might prove a sufficient cause.

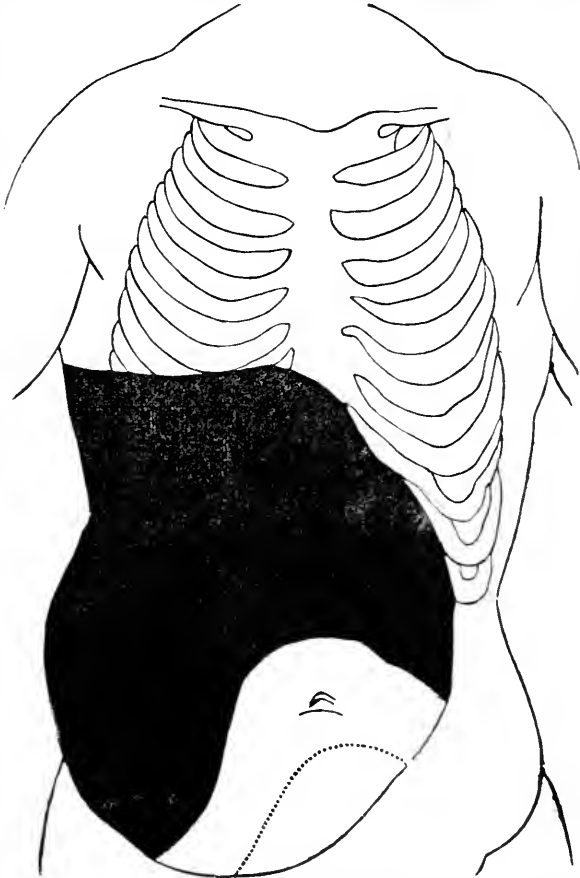
Although the surface appears to be quite uniform, we notice that the *resistance to pressure varies in different parts*, and we must resort

to *percussion* to ascertain more correctly upon what this variation depends. The *perfect flatness* of the greater part of the abdomen, including the projection on the right side, contrasting strongly with the adjacent resonance, shows that *something has displaced the intestines*, for we cannot believe that the latter could have been so transformed as to give a sound so different from that met with in health. Percussion over the prominence in the right lumbar region giving precisely the same note as that over the adjacent portions of the abdomen, we may fairly infer that we have only different parts of one body. But the *percussion over the elongated prominence* in the lower part of the abdomen is very resonant. The character of this resonance is that of the intestine, and alternate pressure with both hands is accompanied by that

peculiar gurgling sound caused by the movement of air and fluid in the intestinal canal. The form of this prominence, with the other peculiarities mentioned, indicates clearly the presence of a *loop or of loops of intestine*. Deep pressure here shows that the *intestine lies upon a firm body beneath it*, which may be traced until it completes the curved line of the left side of the abdominal mass, and gives to the whole an evenly rounded form, as shown by the line in the diagram.

We have, therefore, a *large rounded tumor*, filling the whole of the right and a portion of the left side of the abdomen, with some loops of intestine overlying if not adherent to it. You will also notice that the upper boundary of the flatness corresponds with that of the upper surface of the liver when in its normal seat, and may properly infer that while the new formation is in contact with, or may form a part of the liver, it has not displaced it.

The next question to determine is the *point of origin and true con-*



nection of the tumor, as its size and position oblige us to consider various parts, for, though continuous with the liver, it is lost in the pelvis.

We have already spoken of the significance of the early disappearance of the catamenia; we can base no diagnosis upon that. An examination of the *urine*, it is true, shows a deviation from the normal condition; the specific gravity is but 1.015, and there is a very small amount of albumen, with some crystals of oxalate of lime. Such modifications, however, have no necessary bearing upon disease of the kidneys themselves, and may be merely secondary. With these exceptions, there are no symptoms which call our attention to any particular organ. We will, therefore, *endeavor to ascertain its character*, and, this being determined, we may perhaps decide upon its seat.

We know that it is flat on percussion already; we know that it is bounded by a uniform curved line and is in contact with the intestines, a portion of which rest upon it. Its elasticity is such that we have reason to suspect a fluid, but we know that this peculiarity belongs to soft solids as well as fluids. By the ordinary test, we detect *marked fluctuation*, so characteristic that there can be no reasonable doubt about the presence of *fluid*. Considering the size, position and uniform outline of the mass, we must conclude that this fluid is contained within a sac; that we have a *cyst*, projecting into and occupying a large portion of the peritoneal cavity. *What is the character of this cyst?*

Such may form in the organs or adjacent tissues. It may be owing to the presence of *echinococci in the liver or elsewhere*, be connected with the *kidneys*, or with the *uterus or its appendages*. The patient tells us that she first noticed the tumor on the right side of the abdomen, but its exact position cannot be ascertained. Its absolute continuity with the liver, as shown by percussion, obliges us to give that organ full consideration. The complete flatness of the right side of the abdomen suggests the possibility that the intestines have been gradually displaced by some body extending from above downwards. But we must bear in mind, also, the possibility that so large a mass might compress the ascending colon to such an extent as to force out the air and deprive us of this evidence of the position of the intestine. But this point is not material, as a tumor, whether originating above or below, could enlarge without displacing that particular portion of the large intestine. If the liver be the seat of the growth, its size and form would indicate an echinococcus cyst, and the liver is as likely to form the nidus of the parasite as any other portion of the body. But such a disease is rare, and we should not be justified in diagnosing it until we have considered and eliminated other organs which might be involved.

Cysts are met with in the *kidneys*, but the size alone would deter us from fixing the disease here. The *uterus* may be the seat of *fibro-cystic growths*; the *Fallopian tubes* may be *dilated* by an accumulation of *fluid*, or the *ovaries* may be the seat of *cystic formations* varying much in character.

Of these, cysts connected with fibroid growths of the uterus could not be expected to attain such a size; neither would the cysts of the Fallopian tubes, while such would be common in connection with the ovaries, and, enlarging upwards, would readily reach the liver. We

can, however, obtain additional information about the condition of the uterus by a vaginal examination. The latter shows that the organ is small, movable, and in its natural position. Though distention and displacements may be caused by ovarian cysts, such changes of form and position are much more likely to be connected with fibroid growths; and, taking the results of the examination in connection with the other facts, we must consider ovarian disease much the most probable.

It might be objected that, as a sac thus formed has necessarily a slender pedicle, and as the tumor before us does not fill the abdominal cavity, it should be movable. But it is well known that adhesions may form and prevent such mobility. But we have not yet excluded echinococcus cyst of the liver, and we cannot do so absolutely, although the character of the fluctuation and the relative frequency of the two diseases would lead us to decide in favor of the ovarian cyst.

Having made this *probable diagnosis*, we will resort to the *aspirator*, which ought to furnish us with conclusive evidence.

The fluid removed is opaque and of a brownish color. One familiar with the contents of ovarian cysts, would say at once that such a fluid indicated the presence of a formation of that character, but we may obtain still stronger evidence from a microscopic examination. We see in the field granular corpuscles resembling those of pus or epithelial nuclei, some of a larger size, of no definite character, and cholesterine. Though these elements are not absolutely characteristic, they are what we meet with in ovarian cysts, and there is an absence of any indication of the echinococcus. We may, therefore, consider the *diagnosis of an ovarian cyst established*.

PROGNOSIS.—The prognosis, as far as the natural course of the disease has a bearing upon it, is unfavorable; and, considering the age and general condition of the patient, which unfit her for radical treatment, we cannot expect anything more than relief.

TREATMENT.—As the tendency is to persist and increase, we must interfere if possible. As no constitutional treatment has any effect upon the growth of a tumor of the kind, we must use surgical means. As the age and condition of the woman will not allow the removal of the growth, and as she suffers much from the distention, we must give relief by the operation of tapping. If it should be thought advisable to remove the cyst at a later period, it can be done. Some have objected to tapping, as it may excite inflammation and adhesion between the outer surface of the sac and the peritoneum, and thus interfere with the success of a subsequent operation, but experience has shown that if such an adhesion do take place no great harm follows. But it is not at all probable that our patient will ever be a fit subject for such an operation; she must be relieved, and tapping is our only resource. The use of a small trocar and the air-pump will reduce to a minimum any chance of injury.

By these means, fourteen quarts of the same brown liquid previously mentioned have been removed, with great relief to the patient.

The collapsed condition of the abdomen gives us an excellent opportunity to examine more thoroughly and ascertain whether the cyst be multilocular or not, for all of the above fluid has been drawn from a single cavity without changing the position of the trocar.

Such an examination shows, on the right side of the abdomen, where the projection was originally noticed, a solid, regular, flattened mass,

three or four inches in its transverse and six inches in its vertical diameter. Considering the form and feel of this, we have either a congeries of cysts containing fluid or a firmer fibro-cystic mass, perhaps containing colloid matter.

There only remains for us to better, as far as possible, the general condition of the patient by proper care and nourishment, and enable her to bear the returning discomfort which the re-accumulation of the contents of the sac will certainly produce.

LIFE SUSTAINED BY NUTRITIVE ENEMATA FOR A PERIOD OF TWENTY-TWO DAYS.—At the last meeting of the Bristol North District Medical Society, Dr. J. B. Whitaker, of Fall River, Mass., reported the following case:—

A strong, muscular man, 32 years of age, strictly temperate in all his habits, on the 3d day of May last, drank, by mistake, about three ounces of very strong, caustic potash lye. Antidotes were administered as soon as possible, but the injury was so severe that for thirty-nine days the patient could swallow only the most dilute liquids, and nutrition was aided by injections of beef-tea, gruel, &c. At the expiration of this time, a complete stricture of the œsophagus was formed, which prevented all attempts at deglutition for twenty-two days following. Efforts were made to overcome the stricture by the use of bougies, but not even the smallest could be passed. The patient was seen by Dr. Knight, of Boston, in consultation; and after a careful examination with the laryngoscope, and vain attempts to pass an instrument through the stricture, an unfavorable prognosis was given. Subsequent efforts, however, to dilate the stricture were successful, and a small bougie was passed into the stomach, after which a larger one, so that the patient could swallow fluids, and was improving satisfactorily. Subsequently, an attack of pleuro-pneumonia set in, from which he died seven days after the stricture had been overcome. The following is a summary of the case: Thirty-nine days supervened from the time of the accident to the formation of a complete stricture of the œsophagus. For *twenty-two days, the patient was wholly sustained by nutritive enemata*; and for seven days previous to his death he was able to swallow liquid nourishment, with tolerable freedom.

DR. HAMMOND'S DEFENCE.—Dr. Hammond has published, in the *New York Medical Journal* for September, a very elaborate defence of his action in regard to the McCormick case. The line of defence is that there are certain subjects connected with medicine in which the public are especially interested, and upon which they desire information; and, further, that men of excellent standing in the New York and even in the Philadelphia profession have frequently gratified this desire of the laity for knowledge. . . . How different in tone from Dr. Hammond's defence—which says in substance, "I allowed it; I furnished the wood-cuts to the newspapers; but the rest of you do the same thing"—is the recent indignant disavowal by Prof. Paget of any collusion with the publication of one of his lectures in the *Pictorial World*!—a disavowal in which he declares that he did all he could to prevent the publication, and adds, "I venture to hope that I am not thought likely to be guilty of encouraging the appearance of my name in newspapers."

Is further comment needed? Will libel suits and indulging in the school-boy wit of calling editors names render the difference between these two courses less apparent?—*Philadelphia Medical Times*.

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. FITZ, M.D.

(Concluded from page 377.)

PATHOLOGICAL ANATOMY.

Fatty Emboli of the Lungs.—That embolism from oil globules might occur in the pulmonary as well as in the general circulation, has long been recognized. Experiments have shown that the intra-venous injection of large quantities of oil would produce death within a few minutes, while that of smaller quantities would give rise to death within a few hours, apparently due to oedema of the lungs. The case of Wagner and the subsequent experiments of Busch have directed a closer attention to this subject, and have been of great influence in suggesting a rational theory for the cause of death in a certain number of those cases of severe injury where such has been attributed simply to "shock."

Wagner's case was that of a man whose thigh was broken. Death afterwards occurred, preceded by coma, and many of the capillaries in different parts of the body were found to be plugged with oil globules. Investigating the matter experimentally, Busch found that, after breaking bones and crushing the marrow, fat drops were set free and were apparently taken up by the veins. They were then carried to the lungs and obstructed the pulmonary capillaries, producing death by oedema of these organs.

Bergmann (*Berliner Klinische Wochenschrift*, 1873, No. 33) adds another case to the series. His patient fell from a height of thirty feet; there resulted a comminuted fracture of the thigh. After a short time, pain in the chest was complained of; later, a frothy, bloody expectoration was ejected, the respiration increased in frequency, the lips became livid, the temperature rose, and fine moist râles were heard throughout both chests. Bergmann made a diagnosis of acute oedema of the lungs, caused by fatty emboli, eliminating traumatic pneumonia and pulmonary hæmorrhage. Death occurred seventy-nine hours after the accident. At the autopsy, both lungs were found to be hyperæmic, oedematous, dotted with small dark spots, and containing hæmorrhagic infarcts of the size of a pin's head.

The microscope showed the arteries and capillaries to be filled to an extreme degree with liquid fat. The broken bones were very much comminuted, the marrow crushed, and free fat, mixed with blood, was found at the seat of fracture.

Fatty embolism may occur in other ways, as is shown by a communication from Egli (*Untersuchungen aus dem pathologischen Institut zu Zürich. Jahresbericht der Gesamten Medicin*, 1873, p. 214). He reports two cases where fat was found in the pulmonary vessels in the form of drops and cylinders. In one case the condition was extreme, and he states that, during the last four or five days previous to death, the patient suffered from violent dyspnoea. The source of fat in these two cases was considered to be thrombi in the right heart, which had undergone puriform softening. The degenerated clots were found to

contain abundant fat drops, large and small. He suggests that the absence of fatty emboli in the general circulation might be due to the action of the heart being enfeebled to such a degree as to be unable to force the fat drops through the pulmonary capillaries.

Croup and Diphtheria.—As the term diphtheria, or diphtheritis, has become rather vague in the course of time, Senator (*Sammlung Klinischer Vorträge*, No. 78, 1874) would use the term "*cynanche contagiosa*" to designate an "acute, contagious disease, which occurs chiefly among children, usually beginning with fever, and producing certain alterations of the mucous membrane at the junction of the respiratory and digestive tracts, or in those parts of both tracts in the immediate vicinity of this place of union; that is, alterations of the mucous membrane of the tonsils, uvula and soft palate, base of the tongue, larynx and bronchi, the posterior wall of the pharynx or of the nasal cavity."

The local anatomical changes present numerous variations, dependent upon the quantity and condition of the contagium, possibly upon its stage of development, and upon the disposition of the patient or of the organ affected. A simple catarrh of the mucous membrane is the mildest expression; this may terminate in complete recovery within a few days. That this is no ordinary catarrh is to be inferred from its epidemic occurrence, often in the same house with the severer forms of *cynanche*. Further, the glands of the neck are usually swollen, and, lastly, it may be associated with the development of the severer forms.

There are, first, small round or longitudinal grayish-white, membrane-like patches seated upon the catarrhal portions of the mucous membrane, and which can readily be removed, thus disclosing an apparently unaltered mucous membrane. These patches rarely remain longer than a day, as convalescence or the more serious condition then follows. They are composed of tessellated epithelium, more or less altered, with which are found vegetable spores. It is of great importance that there is no evidence of an inflammatory process in these patches.

Finally, the remaining form also presents flat, grayish-white patches in the pharynx. These are more intimately connected with the mucous membrane beneath, and, when separated, are found to be merely the upper surface of a shallow ulcer, which extends superficially. Pain and slight bleeding are produced by attempts at their removal. The tissues beneath are infiltrated with cells, contain extravasated blood, while the superficial portions, the patches, represent dead bits of tissue, which are more or less loosely connected with the parts beneath. These patches are composed of epithelial cells of varying size and in various stages of destruction, of pus and blood corpuscles, of blood coloring matter; also of granular detritus and spores. They are rather to be compared with the gangrenous masses from a bed-sore, and the process giving rise to them is best called an acute gangrene or diphtheritic inflammation.

The transition between this stage and the preceding is a gradual one and may be overlooked; at the same time, it is not essential that the epithelial patches should have preceded, more particularly where the disease is violent and progresses more rapidly.

Putrefaction readily takes place at the seat of the inflammation, and

may advance to such a degree as to give a most marked instance of moist or putrid gangrene. This is to be considered merely as a higher degree of the diphtheritic form.

In the larynx, trachea and larger bronchi, the epidemic of cynanche likewise produces a catarrhal and diphtheritic inflammation. The latter occurs almost exclusively in the upper part of the larynx, as far down as the true vocal cords, and on the epiglottis. The anatomical structure of these parts, as well as the rapidly fatal result in general, prevent such deep destruction as is found in the tonsils. The epithelial false membrane is not found in the air passages, owing to the delicate nature of the cells there, especially of the ciliated epithelium, which is never detached in continuous masses.

In the air-passages, however, the fibrinous or croupous false membrane is found, which seldom if ever occurs in the pharynx. This is essentially composed of a coagulated albuminate, so-called fibrine, pus corpuscles, and an occasional red blood corpuscle. The absence of epithelium and spores is notable. If this croupous membrane is fresh, scarcely any spores are found. The mucous membrane beneath it is apparently unaltered. The epithelial layer may often be recognized, though at times it is wanting. The deeper layers of the mucous membrane are infiltrated with pus corpuscles, but there is no extravasated blood.

The anatomical alterations produced by cynanche contagiosa are these: catarrh, epithelial shreds only in the pharynx, diphtheritic patches from diphtheritic inflammation above the vocal cords, and fibrinous false membranes from croupous inflammation in the respiratory tract below the vocal cords.

During the epidemic of cynanche, and dependent upon it, there has been observed a diphtheritic inflammation of other mucous membranes—of the conjunctiva, for instance, or of the genital mucous membrane. It is not, therefore, to be concluded that every diphtheritic inflammation of these membranes, even when endemic, is due to the cynanche. A diphtheritic inflammation may occur upon the surface of any wound or ulcer, under certain local or general conditions. In cynanche, it is the rule for these different forms of inflammation to occur side by side and to run into each other. When the child dies with cynanche, the *post-mortem* examination usually discloses membranous patches (diphtheritis) in the upper part of the larynx, the fibrinous exudation (croup) lower down in the air passages, and, still further downwards, a catarrh. It is usually impossible to say where the croupous membrane ceases and the diphtheritic membrane begins; nor is it to be stated that the former represents a less, the latter a more severe result of the cause of the disease. The process usually begins on the tonsils, soft palate or posterior wall of the pharynx, and is very often limited to these parts. It is very rare for the larynx to become affected without a previous inflammation, or a very rapid subsequent affection of the pharynx. The inflammation may extend from the pharynx into the nose or larynx, but rarely into the œsophagus. It may extend from the nasal cavity to the conjunctival mucous membrane. Senator does not absolutely reject the view that there may be a croup limited to the air-passages, and distinct from the cynanche or diphtheria. There seems no doubt that chemical irritants may produce a croupous inflammation of the

air-passages, and observers, up to a comparatively recent period, even now, state that in certain epidemics, while the air-passages are affected by the croupous inflammation, there is no alteration, whatsoever, of the pharynx. At the same time, he maintains that "in by far the greatest majority of all cases, at present, at least, the croupous inflammation of the larynx and air-passages is the result of the cynanche contagium, and occurs almost exclusively in epidemics of cynanche simultaneous with its other anatomical forms." Hence, in general, croup and diphtheria represent merely forms of one and the same disease, cynanche.

Senator regards it as indisputable that the contagious material of the disease is attached to the mucus, pus and shreds of tissue from the diseased parts of the throat, and as not improbable that the same is living and organized. At the same time, the micrococci found in this disease can in no way be distinguished from the organisms found in any putrefactive process, and their inoculation gives rise to no differing results; hence, they cannot be regarded as possessing any specific nature. The idea that the micrococci of putrefaction cause the cynanche, or that micrococci are the first and only cause of the disease, is opposed by the fact that they are not found in any quantity below the vocal cords. In addition, the disease almost never extends into the œsophagus, a road apparently so direct. Finally, the same anatomical alterations of the pharynx may occur in scarlatina and cynanche, while the alterations of the air-passages are very rare in the former disease.

It is considered quite probable, from reasons advanced, that the peculiar form of diphtheritic inflammation is due to micrococci. Whenever diphtheritis occurs, the micrococci are found, almost without exception, and by inoculating an inflamed part with putrid material, containing micrococci, a diphtheritic inflammation may be produced. For the germs to become active, they must be sufficient in quantity, in a state of activity, and with a capacity for development, and the tissue must be capable of receiving them. In the pharynx, all these conditions are present. In the respiratory tract, the ciliary movement prevents the colonization of the micrococci, and the carbonic acid gas possesses antiseptic properties.

According to Senator, the unknown contagium of cynanche disposes to a violent inflammation of the parts affected, as that of scarlatina does to the pharyngeal mucous membrane, or that of measles to the mucous membrane of the larger air-passages, nose and eyes. As a result of the inflammation, the epithelium is loosened and elevated, and losses of substance occur. The spores, always abounding in the pharynx, enter the tissues, and give rise to the death of the inflamed, superficial layers, and the diphtheritis occurs. The latter is, therefore, secondary, and may follow other forms of pharyngeal affections, as in scarlatina, variola, syphilitic ulcers, &c. The diphtheritis once established, and the micrococci favored with so suitable a soil, the air may become readily infected by them, and every ulcer exposed to this air may readily become diphtheritic. There is no necessity, however, that the cynanche poison should be therewith transmitted.

Bibliographical Notices.

The Building of a Brain. By EDWARD H. CLARKE, M.D., Author of *Sex in Education*. Boston: James R. Osgood & Co. 1874. Pp. 153.

It is not to be expected that this work should create an excitement similar to that which followed *Sex in Education*. Continuations and second parts almost invariably cause some disappointment, from the fact that they can only elaborate the original central idea. The scope of Dr. Clarke's former book may be stated in a few words: he argued that women are not men; not that they are inferior to them, but different, and that, owing to their special functions, the education of girls cannot be conducted on the same plan as that of boys. Trite and indisputable as these statements must appear, it was curious to observe that a certain class, far from looking on them as truisms, were inclined to find in them the deepest insult to the sex, and the greatest disparagement of it. The reception of the book, both by friends and foes, shows how much it was needed.

In the present work, the question is approached rather differently, but the object is the same. The book is divided into three parts; the first, which was read last summer before the National Educational Association, is entitled "Nature's Working Plans;" the second, an "Error in Female Building," is cumulative evidence in support of the views advanced in "*Sex in Education*," containing the opinions of many well fitted to speak on such matters, and the sad details of the case of an ambitious and not unhealthy girl, whose death was traced to over-study. The third part, a "Glimpse at English Brain-building," is a striking picture of the care with which girls are brought up in England, the absence of excitement, and the attention to health.

The first part is the essential one of the book; and we regret that we find in it much to criticize. We regret this, for we are quite in accord with the author as to his conclusions, and we fear that a captious and unfriendly critic may direct attention from these just conclusions to what we believe to be errors in the physiological argument. We will quote Dr. Clarke's statement of the way in which he uses the word *brain* (which is made to include the whole nervous system). "First, brain is used as the correlative of mind, not from a materialistic point of view, as if mind (including volition) and brain were identical, but because we know, and only can know, the mind through the brain. The quantity and quality of the latter determine for us the quantity and quality of the former. The development of the soul and mind—of the *ego*—resolves itself into the development of the brain. The artist who builds a fountain looks carefully after the strength and structure, the quality and form, of what he builds, and troubles himself very little about the water which is to animate his work. He knows that jet and drop and spray will pour out just as the fountain permits the flow. In proportion to the character of its structure will be the manifestation of mind and spirit through it. Build the brain aright, and the Divine Spirit will inhabit and use it. Build it wrongly, and the Devil will employ it. The development of the mind, then, means, practically, the development of the brain; and the building of a brain is a part of education" (p. 23). As to the problems before us, they are two, "first to develop the individual to the highest degree; and, secondly, to obtain this development without interfering with the perpetuation of the best. In other words, humanity demands, and our education must give, both the highest development of the individual, and the perpetuation of individuals thus developed, or, as it is commonly expressed, the perpetuation of the fittest. It has been argued, with much apparent force, that these two results are impossible, because the highest cerebral development, being made at the expense of the rest of the organism, sterilizes the individuals whose brains attain such supposed magnificent proportion and quality. This is not the place, nor does it fall in the scope of this paper,

to point out the fallacy of such a statement. It is referred to only for the purpose of calling attention to a physiological error that has already been grafted into our system of education, and which exerts the most pernicious influence in our common and high schools, viz., the error of exclusively developing one part of the organization at the expense of and by ignoring the rest" (p. 15). The author considers such development abnormal, and says, further on, "No perfect brain ever crowns an imperfectly developed body." Now we can hardly assent to the compromise made between the religious and materialistic doctrines; we imagine it would be equally unsatisfactory to Prof. Tyndall, and to his adversary, Dr. McCosh. Had the author taken the purely materialistic ground, his position would have been stronger, but as it is, the simile of the fountain is unfortunate. It is true that the water can be known only through the fountain, but only the shape assumed by the water is modified by it; it may be clear or turbid, fragrant or foul, carrying strength or infection as it falls in the same graceful curve, just as good or bad thoughts, pure or corrupt principles may be equally strongly, eloquently, convincingly expressed by a well-developed brain. It is true that for the water to do its office, good or bad, the fountain must be well built, but no perfection in its structure will change the character of the fluid flowing through it. Was it necessary to open the door to such an unprofitable discussion as the above remarks suggest? We think not.

Let us next consider what is the fittest type of man. Our author apparently says, one with all his parts well developed and in perfect relation to each other; and he implies that greater perfection is synonymous with greater development so long as the proportions are not disturbed. Granted, that if the world were peopled with such creatures the average would be improved, the result, none the less, would be the apotheosis of mediocrity. Dogs shall furnish us an example. We have some excellent for swiftness, some for strength, some for keenness of scent, some for their affection, &c. &c., and by judicious crossing two or more of these excellencies may be combined. Now it may be said that when any of these qualities is excessive it is at the expense of others, that the strength of the bull-dog is at the expense of his speed, &c., but who would be content to relinquish all extremes of excellence and to have dogs neither very swift, nor very strong, nor very keen scented, nor very affectionate, but possessing all these qualities in a moderate degree? Whatever makes any given dog particularly valuable would be lost. If it be true, as Dr. Clarke supposes, that the human brain of to-day will be to that of the distant future, "as the lenses of two hundred years ago are to those of the present day," we are sure that it will not occur through the perpetuation of faultless insignificance. Even if the rule were universal that extraordinary development of one part, say the brain, renders the individual sterile, it may still be occasionally desirable. Though the family perish, ideas may live and have an effect on future generations, not for evil only, as the author implies, but for good also. We do not remember whether Isaac Newton had children or not, but even if he had, it is as a mathematician, not as a breeder, that he has claims on our gratitude.

Again we cannot accept without question the dictum that "no perfect brain ever crowns an imperfectly developed body." Let the reader recall a number of the best brains he can, and count up how many of them were or are in sound and perfect bodies, or, what is more striking, let him test the converse by thinking of a number of the best developed bodies (excluding cases of excessive development), and tell us how many of them are crowned with proportionately developed brains.

We admit the fitness of Dr. Clarke's ideal of a man to recruit the rank and file, but for leaders in the various arts and sciences, which are roads to progress, we must have those specially fitted for their respective pursuits. Far be it from us, moreover, to undervalue education, or to dispute that there is an intimate relation between the brain and the other organs, and that the nature of the brain, the health, character and future of the individual depend largely upon education. Our dissent from some of the author's physiological and social theories does not in any way prevent us from accepting the point

on which he strongly dwells—namely, that though the sexes are different merely in sex, the difference for the most elementary reasons, necessitates, at least after a certain age, their separate education. “But this identity of method in cerebral architecture, which requires that every organ and function in both sexes should have appropriate development and exercise, as a part of brain-building, implies, or rather necessitates, a difference in education between the sexes, just so far as there is a difference of organization and no farther. Identical education of the sexes is in the last analysis equivalent to an unjust discrimination between them: their appropriate and consequently different education is equivalent to the same method of brain-building” (p. 51). “The stimulus of emulation, of constant, daily competitive work, affects the two sexes differently during the epoch of development. A boy is less susceptible to this stimulus at that time than a girl; so that when the same stimulus is applied to the two sexes, at the same time and in the same way, if enough of it is applied to keep a boy well up, it is a physiological injury to a girl; if only enough is applied to keep her properly at work, the result is a physiological injury to him” (p. 63). We must allow ourselves one or two more short quotations as examples of the wisdom of the practical part of the work and of the clear and forcible style in which it is presented. “It is as unphysiological and fraught with danger to make the brain work over books, before its tissue is ready for that sort of cerebration, as to coax a baby to stand, before the bones of its legs are stiff enough to hold up the body” (p. 45). And again, when explaining that he would not be understood to advise that the attention of the young should be directed to their organs and functions, the author says, “one, whose brain ever watches his stomach, is sure to generate a worse dyspepsia there than ever hot bread or unnatural luncheons caused” (p. 47).

We believe the book will do much good, and our criticism is, that, as the conclusions could have been reached by a much simpler line of argument, based on indisputable physiological facts, it was a mistake to introduce theories still open to discussion.

BOOKS AND PAMPHLETS RECEIVED.

Clinical Lectures on Diseases of the Nervous System. By Wm. A. Hammond, M.D. Reported, edited, &c. by T. M. B. Cross, M.D. New York: D. Appleton & Co. 1874. Pp. 287. (From A. Williams & Co.)

Essentials of the Principles and Practice of Medicine. By Henry Harts-horne, M.D. Fourth edition. Philadelphia: Henry C. Lea. 1874. Pp. 547.

Tinnitus Aurium. By Laurence Turnbull, M.D. Reprinted from the Philadelphia Medical Times. 1874. Pp. 16.

On Deaf-Mutism and the Method of Educating the Deaf and Dumb. By Laurence Turnbull, M.D. From the Transactions of the Medical Society of the State of Pennsylvania. 1874. Pp. 7.

Erysipelas and Childbed Fever. By Thomas C. Minor, M.D. Cincinnati: Robt. Clarke & Co. 1874. Pp. 131.

Code of Ethics, Constitution and By-Laws of the Kansas State Dental Association, adopted May 3, 1874. Pp. 14.

Annual Report of the Kansas State Dental Association. 1874.

The Physicians' Visiting List for 1875. Philadelphia: Lindsay & Blakiston. (For sale by A. Williams & Co.)

Infant Diet. By A. Jacobi, M.D. Revised, enlarged and adapted to popular use by Mary Putnam Jacobi, M.D. New York: G. P. Putnam's Sons. 1874. Pp. 119. (From A. Williams & Co.)

Erysipelas, its Treatment with Sulphate of Quinine. By Y. R. LeMon-nier, M.D. From the New Orleans Medical and Surgical Journal, November, 1874.

Biennial Report of the Officers of the Vermont Asylum for the Insane for the two years ending August, 1874. Pp. 56.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 22, 1874.

IN answer to a call, signed by a number of prominent gentlemen, which appeared in the papers yesterday, a public meeting will be held to-day, at half past ten, in Horticultural Hall, for the purpose of raising a large sum of money for a new building for the Harvard Medical School. The Hon. J. H. Clifford will preside, and addresses are expected from President Eliot, Dr. Holmes, Dr. E. H. Clarke, and the Rev. E. E. Hale. The signers of the call are Messrs. Henry P. Kidder, Martin Brimmer, J. Ingersoll Bowditch, Nathaniel Thayer, Henry L. Pierce, John A. Lowell, and Drs. Calvin Ellis, B. E. Cotting, and Charles E. Ware.

Though the history of the Medical School for the last few years is pretty well known, we must review it briefly, to show the claims of the institution. In 1871, the Faculty, tired of the unsatisfactory method of instruction, which is still retained in every other American school, decided, at no matter what pecuniary loss, to do its duty by the community, and to make a radical change in the course. The new plan abolished the dreary winter term, in which, from morning to night, the same lectures were forced in rapid succession upon the youngest and the oldest students, and demanded attendance throughout the whole academic year. Recitations and laboratory work were made of equal importance with lectures. Certain studies were allotted to each year, and the student was forced to pass a satisfactory examination in the majority of them, under penalty of falling into the succeeding class. A course for graduates has since been established for the benefit of those wishing to devote themselves to special branches, or to make original investigations. The Faculty met, at first, with no great encouragement; many did not believe that the time had come to raise the standard of education so high in this country; others, though approving of the movement, thought it must end disastrously, from want of funds. In spite of these gloomy forebodings, the attempt has met with complete success, and it has been shown that the effort was not premature. This year, already, about one hundred new students have begun the study of medicine. It is said that the college should have waited for an endowment, but, as President Eliot well remarked, in a speech on the subject at the dinner of the Medical Society, in 1873, the best way to obtain one is to deserve it. This has been done: the Harvard Medical School, from one of the first, has become the leading school in America, and, if we mistake not, ere long, still

further advances may be expected. What is now needed is money, not to fill any deficit, but to give the school proper accommodations. The building is entirely inadequate; every available inch has been converted into laboratories, and more are required. The building, surrounded by inflammable structures, is not thought fit to contain the valuable collection, much of which is stored elsewhere. The collection belonging to the Society for Medical Improvement will be transferred to Harvard as soon as there is a proper place to receive it. When we consider how much the school has accomplished without assistance, we hardly dare, lest we should be thought to exaggerate, to dilate on what might be expected, had it only the opportunity to carry out its desires. The country may be spared the reproach of seeing the richer graduates, who desire a perfect medical education, flock to foreign schools, while the poorer ones complain that, by being kept at home, they must start in the race for success with the drawback of insufficient training. Give it but the means, and the Harvard School will be the great medical educational centre of America.

We are glad to see that the matter has been taken up by the community in a way that promises the best results. The profession, we trust, will leave no stone unturned to assist in a work which must rebound to its own honor. We most earnestly commend the project to all friends of education; in no other way can they do so much, not only to advance science, but to diffuse most generally its practical blessings.

AT the regular meeting of the BOSTON SOCIETY FOR MEDICAL IMPROVEMENT, held on Monday, October 12th, on "Reports of Committees" being called for, Dr. D. H. Storer rose and said:—

"Mr. Chairman: At the last meeting of the Society, Drs. Jackson, Abbot and myself were appointed a committee to prepare resolutions which should express our sense of bereavement at the death of Jeffries Wyman. As chairman of the committee, it was expected and earnestly desired that Dr. Jackson should present these resolves; he, however, has requested me to perform this duty, and I could not refuse the opportunity to offer my sincere tribute to the memory of my departed friend.

"The Corporation of Harvard University, the trustees of the Peabody Museum, the American Academy of Arts and Sciences and the Boston Society of Natural History have each acknowledged their indebtedness, and expressed their gratitude. It is peculiarly appropriate that the members of a profession, of which he was a most honored associate, should add their voice to the universal lament. We would not utter one syllable of exaggerated praise; we would not insult the memory of our friend by a word of fulsome eulogy.

"In behalf of the committee, I offer the following resolutions:—

"*Resolved*, that, by the death of Jeffries Wyman, our Society has experienced an irreparable loss. Distinguished for the accuracy of his information in the department to which he was particularly devoted, we confidently applied to him to settle any doubtful question which might arise. His readiness, upon all occasions, to remove existing difficulties, his uniform courtesy, his modesty in expressing his opinions, his care never to detract from others' labors while reciting his own, caused him to be esteemed and admired.

"Resolved, that, while we thus honor his memory as a physician, we would recall, also, his *humanity*; we would dwell upon the purity of his every-day life; we would remember the depth and duration of his friendship; we would enshrine the man in our hearts.

"Resolved, that we extend our sympathy to his afflicted family, and transmit to them the above resolves."

These resolutions were unanimously carried, and the Secretary was instructed to publish them in the Boston Medical and Surgical Journal.

F. B. GREENOUGH, M.D.

BOSTON DISPENSARY.—The following are the statistics of this institution for the year ending September 30th, 1874. The number of new patients visiting the central office was 23,040. They are classified as follows:—

	MEDICAL DEPARTMENT.			
	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	678	1477	867	3022
2d " "	1075	1299	899	3273
3d " "	1076	2014	1366	4456
4th " "	1053	1734	2296	5093
Total,	3592	6523	5428	15,544

	SURGICAL DEPARTMENT.			
	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	329	235	120	684
2d " "	378	210	148	736
3d " "	413	278	232	923
4th " "	372	234	196	802
Total,	1492	957	696	3145

	DENTAL DEPARTMENT.			
	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	107	156	149	412
2d " "	107	128	216	451
3d " "	123	150	233	511
4th " "	128	197	255	580
Total,	465	631	858	1954

	SKIN DEPARTMENT.			
	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	152	138	111	401
2d " "	132	96	179	407
3d " "	185	140	127	452
4th " "	177	184	214	575
Total,	646	558	631	1835

	DEPARTMENT FOR DISEASES OF NERVOUS SYSTEM.			
	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter	53	24	3	80
2d " "	41	21	12	74
3d " "	36	35	5	76
4th " "	34	31	7	72
Total,	164	111	27	302

The number of patients visited at their homes by the District physicians is as follows:—

	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
1st quarter,	497	1154	1329	2971
2d " "	662	1454	1504	3620
3d " "	585	1298	1578	3461
4th " "	557	1305	1716	3578
Total,	2301	5211	6118	13,630

RESULTS OF TREATMENT.			
Discharged, cured or relieved,	-	-	12,697
Sent to Hospitals, or removed from Districts,	-	-	555
Died,	-	-	372
Remaining under treatment,	-	-	156
			13,780

Under treatment at last annual report, 150

Number of cases treated at Central Office, 23,040

Total treated at Central Office and in the Districts, 36,670

PATIENTS, NEW AND OLD, AT CENTRAL OFFICE.

1st quarter, -	-	-	-	-	-	-	-	-	-	10,603
2d " -	-	-	-	-	-	-	-	-	-	10,755
3d " -	-	-	-	-	-	-	-	-	-	12,436
4th " -	-	-	-	-	-	-	-	-	-	13,448
Total	-	-	-	-	-	-	-	-	-	47,242
Number of cases of midwifery,	-	-	-	-	-	-	-	-	-	181
Number of recipes,	-	-	-	-	-	-	-	-	-	75,510
Daily average,	-	-	-	-	-	-	-	-	-	256
Sunday average,	-	-	-	-	-	-	-	-	-	16
Number of recipes since July, 1856,	-	-	-	-	-	-	-	-	-	831,871
Number of patients since October, 1796,	-	-	-	-	-	-	-	-	-	299,641
Number of patients since July, 1856,	-	-	-	-	-	-	-	-	-	399,839
Average daily attendance of patients at Central Office,	-	-	-	-	-	-	-	-	-	153

SURGEONS.

John Homans, M.D.

J. Brackett Treadwell, M.D.

Samuel W. Langmaid, M.D.

Thomas B. Curtis, M.D.

PHYSICIANS.

J. McLean Hayward, M.D.

Frederic I. Knight, M.D.

Charles E. Inches, M.D.

J. Franklin Appell, M.D.

Robert Disbrow, M.D.

Thos. Waterman, M.D.

Henry Tuck, M.D.

W. H. H. Hastings, M.D.

Wm. L. Richardson, M.D.

William E. Boardman, M.D.

Charles P. Putnam, M.D.

Theodore W. Fisher, M.D.

Thomas Dwight, Jr., M.D.

Reginald H. Fitz, M.D.

Josiah L. Hale, M.D.

William H. Baker, M.D.

DEPARTMENT FOR DISEASES OF THE NERVOUS SYSTEM.

Samuel G. Webber, M.D.

David F. Lincoln, M.D.

DEPARTMENT FOR DISEASES OF THE SKIN.

Francis B. Greenough, M.D.

DENTAL DEPARTMENT.

Forrest G. Eddy.

Jesse Robbins.

DISTRICT PHYSICIANS.

No. 1.—John B. Fulton, M.D.

No. 2.—Frederick W. Vogel, M.D.

No. 3.—Amos L. Mason, M.D.

No. 4.—Francis A. Harris, M.D.

No. 5.—Joseph P. Oliver, M.D.

No. 6.—Walter Channing, Jr., M.D.

No. 7.—James H. Davenport, M.D.

No. 8.—Wallace W. Lovejoy, M.D.

No. 9.—John G. Stanton, M.D.

John J. Kelley, Apothecary; Clarence W. Huntington, Assistant Apothecary.

ALFRED L. HASKINS, M.D., *Superintendent.*

Obituary.

DR. NATHANIEL BRADSTREET SHURTLEFF died of apoplexy on October 17th, in the sixty-fifth year of his age. He graduated at Harvard in 1831, and took his medical degree in 1834. He was gifted with a great taste for scientific, and still more for literary, pursuits. Besides being a member of various medical societies, he held a prominent position in many others, among which we may mention the Boston Society of Natural History, the American Academy of Arts and Sciences and the Massachusetts Historical Society. He was an honorary member of the Royal Society of Antiquaries, of London; and, for twenty-two years, he had been secretary of the Board of Overseers of Harvard College. He was Mayor of Boston in 1868, 1869 and 1870. He was the author of several works, chiefly historical. His death will be widely regretted.

Medical Miscellany.

WE learn from Washington papers that Dr. Joseph Taber Johnson has been elected orator to the Society of the Alumni at the annual commencement of the Medical Department of Georgetown University next March.

SUPPRESSION OF URINE FOR TWENTY-FIVE DAYS.—Dr. A. W. Fontaine narrates an instance of suppression of urine, lasting twenty-five days, occurring in a woman about twenty-one years of age, somewhat predisposed to hysteria, and the subject of some obscure spinal affection.—*Virginia Medical Monthly*, Oct., 1874.

STATISTICS have been recently collated in Bavaria with respect to the color of the eyes, hair and skin of school children. The first report, coming from Ausbach, gives the total number of children examined in this place at 1,517. Of these, 36 per cent. were found to have blue eyes, 30 per cent. grey and 34 per cent. brown. As regards the hair, 47 per cent. exhibited blond hair, 49 per cent. brown, and 4 per cent. black. In 81 per cent., the skin was white, in 19 per cent., brown.

IDIOPATHIC RUPTURE OF THE SPLEEN.—Mr. Edward Atkinson, of Leeds, reports a rare and interesting case of death from idiopathic rupture of the spleen, occurring in a lady, aged thirty-five, who had been subject to an irritable stomach, with occasional attacks of pain in the gastric region. She had experienced no very decided symptoms, however, until twenty hours previous to death. The character of the lesion was only revealed by an autopsy.—*British Medical Journal*, Sept. 26.

PERFORATION OF THE RECTUM.—A young girl, fifteen years of age, in attempting to jump upon the knee of her uncle, came down upon a walking-stick, which she had not observed him to be holding between his legs. The end of the stick penetrated the anus. She withdrew the stick, and, though she complained of pain, was able to keep in good spirits for the rest of the day. On the following day, symptoms of acute peritonitis supervened, and, on examination by the attending surgeon, Dr. C. S. Jeaffreson, a rent was discovered in the anterior wall of the rectum, which was large enough to admit the finger into the peritoneal cavity at the apex of the recto-vaginal pouch. Death took place within forty-eight hours, and the site of the wound was verified by *post-mortem* examination.—*British Medical Journal*, September 26.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending October 10, 1874.*

Boston, 160; Worcester, 26; Lowell, 27; Milford, 2; Chelsea, 5; Cambridge, 13; Salem, 7; Lawrence, 8; Springfield, 10; Lynn, 12; Fitchburg, 2; Newburyport, 1; Somerville, 10; Fall River, 21; Haverhill, 5; Holyoke, 10; Pittsfield, 6. Total, 325.

Prevalent Diseases.—Consumption, 55; cholera infantum, 35; typhoid fever, 25; diarrhoea and dysentery, 12; pneumonia, 11.

CHAS. F. FOLSOM, M.D.

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 17, 133. Males, 75; females, 58. Accident, 3; apoplexy, 5; inflammation of the bowels, 4; disease of the bowels, 1; bronchitis, 3; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 2; cancer, 2; cholera infantum, 13; consumption, 24; cerebro-spinal meningitis, 1; convulsions, 2; debility, 5; diarrhoea, 5; dropsy of the brain, 3; drowned, 2; dysentery, 1; diphtheria, 1; diabetes, 1; erysipelas, 1; scarlet fever, 3; typhoid fever, 6; gastritis, 1; disease of the heart, 3; intussusception, 1; indigestion, 1; intemperance, 3; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 1; inflammation of the lungs, 6; marasmus, 3; old age, 2; paralysis, 4; pleurisy, 1; premature birth, 3; puerperal disease, 2; peritonitis, 2; suicide, 1; syphilis, 1; teething, 1; whooping cough, 1; unknown, 1.

Under 5 years of age, 53; between 5 and 20 years, 11; between 20 and 40 years, 38; between 40 and 60 years, 14; over 60 years, 18. Born in the United States, 94; Ireland, 22; other places, 17.

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Original Communications.

SERIOUS PATHOLOGICAL CHANGES IN MYOPIC EYES.

By HENRY W. WILLIAMS, A.M., M.D.

Professor of Ophthalmology in Harvard University.

I HAVE lately had under my notice four cases, where eyes, which had previously been merely included in the category "near-sighted," not only became blind, in consequence of separation of the retina, but were afterward the seat of still further changes—the formation of cataract, and, in one instance, the establishment of irido-choroiditis, which gave rise to symptoms of sympathetic irritation in the other eye. All these serious results could be directly traced to the progressive increase of the previous myopic conditions of the fundus of the eyeball. As they supervened, in every instance, without any suspicion, on the part of the patient, that the eyes were being used imprudently, and without any warning of impending danger, I think these specimen cases worthy of being brought to the notice of the profession, as showing how grave may be the ultimate consequences of over-use of near-sighted eyes.

CASE I.—A young lady, from New Brunswick, consulted me March 30, 1874. Ever since her early school-days, she had been highly myopic; but considered her eyes "very strong," and used them excessively. Some months ago, she observed a sudden obscurity, quickly going on to complete blindness in one eye. At first, the field of the pupil was clear, but cataract was gradually developed. More recently, the eye had become sensitive to touch, and occasionally painful, with considerable injection of the ciliary region. The other eye now shows distinct signs of sympathetic irritation, threatening to become sympathetic ophthalmia and destroy the sight. This eye, also, is exceedingly myopic, showing, with the ophthalmoscope, very large, posterior staphyloma around the optic nerve entrance. Its acuteness of vision is very much lessened, partly, no doubt, from the beginning of sympathetic ophthalmia. The fundus of the blind eye could not be seen with the ophthalmoscope, on account of the cataract; but sufficient appearance of fluctuating folds behind the lens could be made out, to prove the existence of retinal separation. The lens had been somewhat pushed forward, as in glaucoma, and was shrunken in size, and to this displacement, with the extensive detachment of the retina, must be attributed the inflammation in the iris and ciliary region.

Immediate removal of the disorganized globe was advised, to preserve the other eye from the threatened danger. The best results followed the operation, all morbid symptoms soon subsiding in the opposite eye.

Section of the enucleated eye showed complete separation of the retina, except at its attachment around the entrance of the optic nerve. It was compressed into a mere cord, extending from the optic disc to the posterior surface of the crystalline lens. The lens had become almost cretaceous, and its pressure against the iris and ciliary body had been similar to that produced by any foreign substance.

CASE II.—Miss —, of New Orleans, consulted me August 3d, 1874. She had been an ambitious teacher, and used her eyes continually for small objects, believing, as her eyes were near-sighted, she "could do anything with them." In January, 1873, she struck her left eye, in tearing a sheet of paper. Had some pain, and soon noticed dimness of sight. Some time after this, opacity of the lens was seen.

Her condition is as follows: The cataract of left eye seems swollen, and pressed forward against the iris, appearing, at first sight, as if the capsule had been torn. The deeper parts of the eye could not be seen with the ophthalmoscope; but the history of the case and the very slight perception of light indicated separation of the retina as having preceded the formation of the cataract.

In the right eye, vision was good for reading and writing, though at times she had great pain. It was myopic $\frac{1}{2}$, and the ophthalmoscope showed a large, posterior staphyloma, and some floating opacities in the vitreous.

The advice given was that no operation should be performed while the left eye remained quiescent, as the disorganized condition of the deeper structures forbade the hope of any restoration of vision after the removal of the cataract. Great care was enjoined in the use of the other eye, that no fresh congestion should increase the changes already present. In case of any injection or tenderness of the left eye, no time should be lost before seeking advice.

After obtaining my opinion, the patient informed me that she had been under the care of Dr. Pope, of New Orleans, and that he had seen the separation of the retina soon after its occurrence, and had also observed turbidity of the vitreous, before these parts had become hidden by the lenticular opacity in the left eye.

The aspect and position of the lens in the left eye are such as threaten further mischief, and it is not improbable that the enucleation of this globe may become a necessity at some not very distant time.

In the other two cases to which I refer, the patients have been under my own observation during all the sequence of morbid changes.

CASE III.—A gentleman, upwards of 50 years of age, had been exceedingly myopic, but had never had reason to give his eyes an anxious thought, and had congratulated himself on their supposed excellence. His business required their constant use for minute work. Suddenly, one-half the field of vision in his left eye became obscured, and, in about twenty-four hours, its sight was nearly lost.

I found extensive staphyloma in both eyes, and in the left an almost complete separation of the retina. After an interval of several months, cataract formed in this eye; but, as yet, no other symptoms have been developed by its presence.

CASE IV.—A gentleman, of middle age, devoted to literary pursuits, had, for a long time, worn concave glasses of very high power, and was conscious that they gave him less and less assistance. A slight blow on his left eye, followed by pain and increased dimness of sight, led him to ask my advice.

Separation of the retina, to one-half its whole extent, could be perceived in his left eye. In addition to a very large, double posterior staphyloma, he had, in both eyes, considerable floating vitreous opacities, and greatly-diminished acuteness of vision. These changes were so considerable that the utmost care on his part has not sufficed to prevent their going on in a progress from bad to worse. The retinal separation has become complete, and cataract has formed in his left eye. In the right, an increase of the staphyloma, and of the floating filaments in the vitreous, and an effusion in the region of the macula lutea, have still further impaired his vision.

The fact that these and other lamentable results of progressive myopia are of so frequent occurrence, should induce the profession to interpose a word of warning, especially as regards near-sighted children, against the so general abuse of their eyes in excessive study.

A CASE OF CEREBRO-SPINAL MENINGITIS, ENDING IN RECOVERY.

By WILLIAM OSGOOD, M.D., of Boston.

IDA —, aged three years, became suddenly ill on the 30th of May, 1872. Although she had not seemed very well for a day or two, the first indication of serious illness was a convulsion on the morning of May 30th. I saw her soon after the convulsion. The face was flushed, skin hot, pulse 146, temperature $101\frac{1}{2}^{\circ}$. A dose of *santonin* and *calomel* was ordered—four grains of each—on the suspicion that the convulsion was caused by worms.

May 31st.—No more convulsions. Bowels moved freely, but no signs of worms. Pulse 100; temperature $99\frac{6}{10}^{\circ}$; skin moist; urine scanty and dark; general hebetude, with occasional twitching of the muscles. Ordered *potass. bromid.*, gr. iv., every third hour.

June 1st.—Pulse 92; temperature $99\frac{1}{2}^{\circ}$. The torpor is now broken by uneasiness and screaming at short intervals, the shrieks being very loud and piercing.

June 2d.—Worse in every respect; constantly screaming and tossing about; shows no signs of intelligence. Impossible to take pulse or temperature. Bromide increased to four grains per hour, and tincture of *ergot*, gtt. x., every hour.

June 3d.—Worse. Twitching, restlessness and screaming continue, with strong *opisthotonos*. Ordered the *ergot* to be continued and the bromide to be increased to six grains per hour, and a blister, two by six, over the lower cervical and upper dorsal spine.

June 4th.—Blister well filled. Spasm less; more quiet; free perspiration for the first time since attack.

June 5th.—Improving. Head drawn back a little, but can be brought forward without causing pain. Pulse 120; temperature $99\frac{1}{2}^{\circ}$. Takes a little liquid food.

June 6th.—Had a very comfortable night; no spasm, and seems brighter and more intelligent. Eats freely of light food. Pulse 120; temperature $101\frac{7}{10}^{\circ}$.

June 7th.—Improving. Pulse stronger and the case presenting a much more promising aspect. The bromide and *ergot* have both been

continued, but with less frequency since the improvement commenced. She gets them now about once in eight hours.

June 8th.—Not so well; less appetite; head drawn back a little; pain in back of neck.

June 9th.—Appetite better than yesterday, but general condition not so good; feverish; pulse 120; temperature $103\frac{6}{10}^{\circ}$; head drawn back; very restless.

June 10th.—Had a restless night, but seems better this morning; mouth and tongue sore; lips and teeth covered with sordes. To stop the ergot and bromide, and have wine, $\mathfrak{z}\text{i}$, tinct. opii, gtt. vi., in starch water, per enema.

June 11th.—Head still drawn back. Free perspiration, commencing soon after the injection; less thirst; takes less food (owing probably to soreness of mouth); pulse 130.

June 12th.—Not as well. Restless, with screaming spells; head drawn back.

June 13th.—Worse. Restless, screaming frequently. Am unable to take pulse or temperature. Ordered tinct. opii deodorata, gtt. x. p. r. n., till some quieting effect was produced.

June 14th.—Slept some during the night, after two or three doses of the opium, and seems torpid this morning. Takes no food. Skin generally dry and harsh; thirsty; pulse 120; temperature 101° .

June 15th.—About the same.

June 16th.—About the same, torpor and restlessness alternating with each other; head constantly drawn back, and the whole condition of the patient very unfavorable. The urine is scanty and high colored, I should judge, though it is not possible to collect any for examination; the odor is strongly ammoniacal. This has been the condition generally throughout the disease, but the bowels have acted daily, and frequently three or four times a day, from the first. She takes no food, excepting a little milk and water or a very little beef-tea. Ordered chloral hydrate, gr. x., tinct. opii, gtt. x., to be given per enema.

June 17th.—Took chloral and opium at 12, M., yesterday, and at 12, P.M., and has slept most of the time; takes beef-tea and but little food. Very comfortable. Temperature 100° .

June 18th.—Took chloral and opium at 8, P.M., yesterday, and slept well; takes very little food. Pulse 144; skin cool; free perspiration yesterday P.M.

June 19th.—Had chloral and opium once last night and slept well. Appears better. Pulse 110. Temperature $99\frac{1}{2}^{\circ}$.

June 22d.—Takes less food and does not seem as well. Sleeps well with chloral and opium once in twenty-four hours. The weather being very hot and the location unhealthy, I sent the patient to the country to-day. She was taken to a house ten miles from the city, located on an elevated plain; soil light, dry sand.

June 24th.—Appears better; takes more food.

June 26th.—General condition worse; refuses food. Stop chloral and opium and give bromide of calcium, gr. iv. p. r. n.

July 3d.—Seems to gain very little in any way, and takes scarcely any food; irritable and restless. Pulse 130.

July 7th.—Remarkable change for the better commenced on the 5th. Appetite good and food well borne; sleeps well; less irritable, and in

all respects very much better. An eruption appeared on the 5th, of a vesicular character, covering the body, limbs and head, but more full on the face, head and lower part of the legs. This eruption was peculiar from the first. The individual vesicles resembled those of varicella, but in those parts of the body where varicella is most profuse, as on the trunk, there were the fewest vesicles; and the course of the disease did not resemble that of varicella. On the face, trunk and thighs, the vesicles shrivelled and dried into thin scabs during the first two weeks. No pus was seen in them, and, when the scabs fell, a dry, smooth red base was left; no pitting. On the scalp, the scales were thicker and remained much longer on account of the hair, but nothing like pus could be discovered. On the lower part of both legs and feet, the vesicles, instead of drying away as on the trunk, increased in size and became filled with a gelatinous substance, composed largely of dark blood. When pricked, a little thin fluid would exude, but the bulla would not collapse. The base was hard, a little elevated and red. In the course of two or three months, these bullae scabbed over, and, when the scab fell off, they left hard, red nodules, which disappeared entirely in the course of about a year. The course of convalescence, from the 5th of July, was uninterrupted and the recovery was perfect.

The house in which this child was taken sick was located on low, made land, Kneeland St., Boston, and the drainage was evidently bad. No permanent improvement took place in the health till some days after her removal to the country, and then the improvement was very rapid.

The above case presents one or two points of peculiar interest: and, to me, the most remarkable fact is that recovery could follow a disease of so great severity, continued over a space of thirty-seven days. There were, it is true, periods of amendment during this time, but they were brief; the brain and spinal cord were at no time free from symptoms of inflammation or pressure. The eruption was one which could not well be classified among skin diseases, and yet it does not belong to the main disease in question. I have never seen anything exactly like it. In June, 1873, I had a case of cerebro-spinal meningitis in a child six years old, in which there was a papular eruption on the face and neck, lasting about three days, and then disappearing entirely. That case was one of very much less severity and shorter duration than the above. During the epidemic of smallpox in 1859, I had a case of varicella in a girl about eight years old, in which many of the pustules, instead of drying up at the proper time, increased in size and filled with fresh pus. When the scabs were removed, pure pus was found on a dull-red, sluggish-looking, spongy base; and, after final recovery took place, elevated scars of cicatricial tissue remained. Another fact in this case may be noticed, and that is that permanent recovery commenced with the advent of the eruption.

POISONING BY SULPHATE OF COPPER.—A man has lately been condemned to death in Paris for having poisoned two wives with sulphate of copper, administered in small doses. Both women died with symptoms of violent pain in the abdomen, and continuous vomiting. The bodies were exhumed, and submitted to an analytical chemist, who was able to determine the presence of the salt in the liver and kidneys of each subject. The sulphate of copper thus obtained was displayed at the trial upon an iron plate.

Progress in Medicine.

REPORT ON PUBLIC HEALTH.

By F. W. DRAPER, M.D.

CREMATION.

THE advocates of cremation, as a sanitary measure, find their principal opponents on the side of superstition and sentimentality. No one has as yet disproved the theoretical sanitary advantages to be derived from this method of disposing of dead bodies; but since Sir Henry Thompson advocated the revival of the custom, as a hygienic reform made necessary by the growing scarcity of ground for burials in and near large communities, many strong protests have been made, from the pulpit and in the popular press, against the adoption of a "barbarian" rite, and the surrender of the traditional Christian way of conducting funerals. The prejudice growing out of hereditary habit has thus far been the main obstacle to an extended experience in the new, yet oldest, method.

Meanwhile, those who favor cremation urge their arguments with new vigor, and illustrate them with new facts. One of the most recent contributions to the literature of the subject is by Mr. W. Eassie, the Secretary of the London Cremation Society (*British Medical Journal*, Aug. 1, 1874). Mr. Eassie points out the positive evils for which inhumation is answerable. He shows that the fetid air exhaled from the dead is fatal, if breathed in a concentrated state, and that even when dissipated and diluted by the wind, it lowers the vital powers of the community. He cites many cases where evil and even fatal results have attended exposure to the noxious exhalations of grave-yards. Grave-diggers and sextons have furnished many examples of slow or rapid blood-poisoning, as a consequence of their occupation. The danger of inhaling the atmosphere of churches under which vaults are used for interments is alluded to. The emanations from decomposing bodies will rise to the surface through eight or ten feet of gravel, the very soil preferred for burial purposes.

The danger of the infection of water supplies situated adjacent to burial grounds is insisted on by the writer, and is confirmed by many well-authenticated instances, which he quotes. The organic matters resulting from decay have been traced to cemeteries a very considerable distance away. Dr. Pietra Santa discovered an instance in which a number of springs, supplying water to a village, were contaminated by the percolation of putrefactive matters from a cemetery, situated at a distance, and states that, eventually, a general epidemic was produced, in consequence of the exposure.

These conditions, as well as the need which is constantly and increasingly felt, more especially in larger cities, for more room for cemetery purposes, make the matter of repudiating interment, and of substituting some other method, one of great consequence in its sanitary bearings. The writer shows that embalment is impracticable and undesirable, that petrification is a failure, that sea-burial has no reasonable recommendation, and that cremation is all that is left to choose. Both in the ordinary necessities of civil life, and upon the

field, after battle, cremation fulfils all the demands of public health without the sanitary disadvantages attached to the burial of the dead.

An instructive paper in the *Gazette Médicale de Paris* for May 23, 1874 (translated in the *Chicago Medical Examiner*, Aug. 1, 1874), presents descriptions of the apparatus which has been tested for carrying cremation into practice. The writer says: "The technical result to be obtained is the resolution, as speedily as possible, of the organic substance of bodies, into the final and inoffensive products of combustion, and to avoid all intermediate reactions which offend the nostrils and injure health. The procedure should produce no disagreeable impressions on survivors, and should accord with that reverent respect due to the mortal remains of those who were dear to us in life." For the attainment of these ends, it has been found that no arrangement promises such a measure of success as that invented by Siemens. This apparatus consists of a series of chambers or regenerators, by means of which the air becomes super-heated, so that when it reaches the combustion-chamber, containing the body, it has attained a temperature which effects speedy and odorless consumption of the organic matters with which it comes in contact. The time requisite for the cremation of a human body by this process is one hour, and the expense is estimated at less than a dollar for each corpse. The writer describes other processes, which have been tested, as, for example, those of Polli, of Milan, and Gorini, of Lodi, but none of these fulfil all the requirements so well as does Siemens's regeneration system of calefaction.

A recent article in the *Abeille Médical*, of Belgium, charges cremation, as practised in India, among the Hindoos, with disseminating the cholera-poison, the gases which arise from funeral pyres being loaded with cholera-germs, and transported by the wind to distant territory. In contrast with this view is the statement of Mr. Long, for thirty years a resident of Calcutta (*British Medical Journal*, Aug. 1, 1874), who says "the Mahomedan burial-grounds there have long been a crying evil, and the nurses of cholera, fever and dysentery." The Moslems practise a shallow burial of their dead, and it is of frequent occurrence in the outlying cemeteries that the corpses are disinterred by jackalls. Mr. Long eulogizes the customs of the Hindoos, on the other hand, who, at the expense of a few shillings, burn the dead "out of their sight."

DISPOSAL OF NIGHT SOIL.

Until it is made compulsory upon urban house-holders to discharge all the sewage of their houses into properly-constructed drains, and thence into sewers, vaults will continue to vex the patience of sanitary authorities, and to contaminate the atmosphere of whole neighborhoods. Not the least important problem in the supervision of the excrementitious products of thickly-settled communities is how to remove the contents of vaults with decency, and with the least offence. The traditional night-cart, with its appendages of open tubs and buckets, is vanishing only too slowly before the more improved methods, adapted from the French system of odorless excavating. It is to be hoped that, before long, the old-fashioned way will be entirely supplanted.

The dry-earth system promised excellent results at the outset, but

it has found practical obstacles in the care and vigilance rendered necessary to prevent the development of nuisance in connection with it. Latterly, however, a new impetus has been given to this principle of deodorizing by what is known as the "Dalmuir System" of utilizing night-soil. This method was described at length in a paper read by Prof. T. Sterry Hunt before the American Association for the Advancement of Science at its meeting in August, of this year. The method was devised by Mr. Stanford, an English chemist. Charcoal, obtained from the charring of sea-weed, or of ordinary street-sweepings, is used as the deodorant, only one-fourth of this agent being needed as compared with dry earth. The odorless and partially dried mixture of charcoal and excrement is removed, from time to time, from the houses where it collects, and is subjected to a red heat in close vessels, like gas-retorts. The products of this process are water, ammonia, acetic acid, tar, gas and charcoal, the latter being augmented in bulk as compared with the original quantity. This dry charcoal may either be used again to deodorize, or may be utilized as manure, the accession of phosphates to it giving it much value for this purpose. Acetate of lime and sulphate of ammonia, also, are products of the distillation, and are in demand as fertilizers. It is noteworthy that the experiment, carried on at Dalmuir during the last three or four years, has been a source of profit to the company which manages the process, and of health to the community which supplies the materials.

COMMON CARRIERS AS THE PORTERS OF DISEASE.

Assistant Surgeon Ely McClellan, U. S. A., writes, in the *American Practitioner* for August and September, concerning the transportation of contagious diseases on the lines of railroad and steamboat travel. The writer shows how the trains of passenger-cars may carry infection from place to place, and serve as a ready medium for the dissemination of epidemics. The plush covering of the seats offers an asylum to contagion in its meshes, while the mis-named *salon* at the end of each car affords facilities for the distribution and transportation of disease. The commode in this latter apartment is so constructed that the dejections of passengers fall directly on the ground, whence, in certain favorable situations, they may contaminate water-sources by surface drainage. Moreover, the water-supply of the cars themselves is strangely misplaced in most cases; the reservoir or water-cooler is half within the saloon above mentioned, and exposed to the unwholesome exhalations of the apartment.

Again, the writer severely criticizes the arrangements in the sleeping cars, and points out the fact that the means provided to secure the comfort of travellers may become the source of disease to them. Besides the defective ventilation of the cars, and the scanty allowance of air-space to each sleeper, danger to health arises from the facility with which persons sick from contagious diseases may secure passage in sleeping berths.

Some remedies are indicated for the improvement of this condition of things on railroad cars. The reservoir of drinking-water should be at the unoccupied end of the car; the urinals and commode should be so constructed, as regards material and plan, that frequent disinfection and cleansing may be practised; the bedding of all Pullman cars should be placed in a temperature of 250° at the end of each trip on

which it is used; the heavy, woollen curtains should be dispensed with, and lounges should be substituted for beds, so that disrobing, partial or entire, should be discouraged among passengers.

The writer alludes to other ways in which common carriers may transport contagion through clothing and other baggage conveyed from point to point.

Steamboats may also become the agents for the diffusion of cholera, smallpox, and other diseases in a manner analogous to that above described. The deck passengers on the western river-steamers have inadequate closet-accommodations, as well as scanty travelling conveniences; they pay for nothing but their passage, and at night lie exposed on the baggage of more favored cabin passengers. The contagious disease may remain latent and incubating during the passage, or it may break out on the route and the patient may readily infect the merchandise or baggage on which he rests.

ARSENICAL POISONING BY WALL-PAPERS.

Renewed attention to this subject has been called by Dr. George Johnson, who has given an instructive and extended view of this source of disease in a lecture, published in the *Sanitary Record* for July 4 and 11, 1874. The writer cites a number of cases of poisoning, in which the symptoms were defined, and the exposure unequivocal. The inhalation of the arsenical dust (arsenite or aceto-arsenite of copper) mechanically separated from the paper on which it is laid as a pigment is considered the most probable source of the affection; the theory of chemical decomposition and the evolution of arseniuretted hydrogen or other noxious gases is not accepted.

The writer replies to objections that exposure to arsenical wall-paper is not uniformly followed by bad effects, by the statement that all cases do not come to the light, that many cases fail of detection, or are diagnosticated erroneously, and that very much depends on the idiosyncrasy or susceptibility of those exposed. A comparison is instituted between "hay-fever" or autumnal catarrh, and this variety of arsenical poisoning; just as most persons tolerate the pollen, or the parasite, which excites the former, so, also, the majority of people bear the presence of a small amount of arsenical dust in the air without developing the symptoms of chronic poisoning. Perhaps it would be better for the public safety, and would more speedily rid the market of the dangerous material, if there were a more general susceptibility. The writer very properly calls attention to the fact that the arsenical greens assume the most deceptive shades when combined with other colors, and that the poisonous substance may be found not only in the bright green papers, but in the pale green, gray, and even blue or brown hangings.

Hamberg has conducted a series of experiments on the air of a room hung with arsenical paper (Schweinfurt green) and has come to the conclusion that the poison exists in the air, not as dust, but as a gas, probably arseniuretted hydrogen (*Nordiskt Medicinisk Arkiv*, vi., 1874; *Medical Record*, Oct. 1, 1874). His apparatus was as follows:—

a. A U-shaped tube for the reception of the dust. b. Three similar tubes, filled with cotton, to completely separate the solid particles of arsenic from the air. c. Two bulb apparatuses, containing a solution of nitrate of silver, to collect any arsenic present as gas in the air.

d. Two gasometers, of fourteen litres capacity, alternately filled with water, to supply an aërial current.

The air was drawn through this apparatus, during a full month. In the course of the experiment, the solution of nitrate of silver gradually deposited a black precipitate, from which the characteristic arsenical ring was obtained by the Berzelius-Marsh apparatus.

CONTAMINATION OF AERATED WATERS.

A new source of lead-poisoning is pointed out by a contributor to the *British Medical Journal* of Feb. 14, 1874. He suspected the presence of lead in the potassa water which is sold in the ordinary syphon bottles so well known in this country for the dispensing of soda-water and the aërated mineral waters. He believed that the lead was derived from the metallic cap through which the water is discharged when used, and accordingly he placed a number of bottles of the suspected fluid in the hands of an expert chemist, who found lead in all the samples. Six syphon bottles of potash water, one of soda and one of seltzer were examined. In two instances, zinc was found with the lead. There was quite enough lead found in either one of the specimens to undermine health if the water were taken continuously.

Confirmatory evidence of this source of lead-poisoning is furnished by Mr. Wilson, who relates an actual case under his observation (*British Medical Journal*, Aug. 29, 1874). The symptoms of lead-disease were pronounced, but the source of the poison was not apparent at first. The water-supply of the house was tested and acquitted. At length, it occurred to the attendant that soda-water had been prescribed to be taken freely; and it was found that the patient had been taking the water to the extent of six or seven bottles daily, and that previously to her illness she had used it freely as a beverage. On analysis, the soda-water betrayed the presence of lead unequivocally, a gallon of the liquid giving nine tenths of a grain of the metal. Dr. Wallace, the chemist who analyzed the water, says, in his report, that a person taking forty ounces of the soda water daily "would thus be swallowing about a quarter of a grain of lead—a quantity far more than enough to give rise in a week or two to symptoms of lead-poisoning. Ordinary drinking water is considered dangerous if it contains one tenth of a grain of lead per gallon."

Those who prefer to imbibe their soda-water from syphon bottles in private, will be interested not only in the foregoing exposure of the risk they run, but also in another, and scarcely less important, fact concerning the same beverage. It has been ascertained by Dr. Lankester (*London Medical Record*, Sept. 2, 1874) that much of the soda-water of commerce is open to suspicion because of the presence of organic impurities. He tested six samples of the bottled water bought at druggists' and found a "considerable quantity of organic matter," with the residue of carbonate of soda. None of the samples proved to be what they pretended with reference to the amount of soda in solution.

RATE OF MORTALITY IN FOUNDLING HOSPITALS.—"In Foundling Hospitals, at least one child in every two dies, while in that of Irkutsk, the rate of mortality during a period of two years amounted, according to Cochrane, to 100 per cent., not a single child being found there over one year old."—*Ziemssen's Handbuch*.

Bibliographical Notices.

Transactions of the Medical Association of the State of Alabama: Twenty-seventh Session, 1874.

THIS volume of Transactions is a credit to the Association under whose auspices it was published. In the character of the scientific papers, in the tone of the formal addresses, in the tenor of the business proceedings, even in the typographical appearance of the book, we see evidences of a mature vigor, an enthusiastic purpose and a progressive spirit, which we can heartily commend as worthy of emulation. It is exceedingly gratifying to bear witness to such enterprise. It is to be remembered that the war-cloud has hardly cleared away from the Southern sky, and that the medical profession in the South bore much of the burden, and still share many of the consequences, of the strife, so that it is especially noteworthy that this Alabama Medical Association can issue a volume of Transactions that would do credit to the most favored medical community.

We give a passing word to the organization of this Society, inasmuch as it presents some novel features. Unlike the State medical bodies with which the New England profession is familiar, and which are designed to include as many regular physicians as may be, in order to establish a standard of regularity in practice, the Alabama Society is composed of a permanent house of counsellors, numbering, at the maximum, one hundred members, and of delegates from district or county Branch Societies, the proportion being fixed. Thus, the membership is limited, and the best men in the profession appear as representatives. In many respects, the organization resembles the double legislative body of the National Congress. In all matters of ethics, of professional dignity, and of public medical policy, the Association utters its opinions emphatically, sensibly and hopefully.

The address of the President, Dr. Ketchum, introduced the deliberations of the three days' session. Its subject was the obligations of the medical profession with reference to the sanitary needs of the people of the State. Although largely devoted to an argument in favor of sanitary legislation in Alabama, urging measures which should bestow on the physicians of the State the legal authority to accomplish much needed work in the field of public hygiene, the discourse contained very much of general interest to sanitarians. Exposed, as this Southern community is, to incursions of yellow fever in addition to the epidemics which do not depend to such a degree on climatic influences, we cannot wonder that the medical profession demand the establishment of more and better sanitary precautions. In Dr. Ketchum's address, there are to be found many convincing arguments in favor of a well-regulated, scientific administration of State Medicine.

Dr. Michel contributed an exhaustive report on the Epidemic of Yellow Fever in Montgomery, during the summer of 1873. The cases of the disease numbered between four and five hundred in a population of eighteen hundred. The mortality was over twenty per cent. It was observed that, during the prevalence of the fever, the city was exempt from other diseases, and especially from malarial disorders. The writer considers the disease called "dengue" as a mild or modified form of yellow fever. It was noticed that almost all the cases of yellow fever occurring among females were accompanied by uterine hæmorrhage. In the matter of treatment, the essayist remarks: "The profession here, generally believing the disease self-limited, seldom resorted to medicine." The epidemic subsided with the first frost, thus illustrating an old observation.

Dr. Cochran offered a long paper on the general course of the Epidemic of Yellow Fever, which visited the South so extensively in 1873. It is a comprehensive history of the incursion, whose ravages, it will be remembered, were so terrible in Memphis and Shreveport and New Orleans. The report

contains many facts of great interest to sanitarians, as well as to those who have to deal with the dreaded disease hand to hand. As conclusions to be derived from the epidemic, the writer states that, in his belief, yellow fever is an exotic disease, transmitted by direct importation; that quarantine, though in its theory good, is only partially effective, because of well recognized practical difficulties; and that disinfection was a failure as a prophylactic measure.

Dr. Cochran contributed a second paper, the subject being the white blood corpuscles, in health and disease. The essay is an elaborate discussion of the chemical and physical characters of the white blood corpuscle, with a review of what is known concerning its physiological relations.

Dr. Anderson discussed the pathology and treatment of Dengue; he considers it a disease having special intrinsic characters, pointing to impaired nervous function, and in no way allied to yellow fever.

Dr. Bryce, the Superintendent of the Alabama Insane Asylum, made a strong plea in favor of State aid to hospitals; he urged the establishment of State Asylums for the insane, for the idiotic, for the deaf and dumb, and for inebriates. He also advocated State Medical Schools as a remedy for the deplorable laxity into which medical education has fallen in some sections. In this direction, his arguments do not appear convincing; we cannot quite accept his conclusion that the much desired reform would follow in the wake of State Endowments. Let the established medical schools carry out the reform already inaugurated, and there will be no need of State interposition. Moreover, the established schools will presently see that financial fortune does not rest alone on those which make the curriculum easy and graduation a farce; but that the college which makes its diploma a valuable acquisition, in all its respects, will not lack applicants for its courses of study.

A number of other papers and reports were read, all of them interesting, some of them very valuable as original observations, but our space will not permit any extended review of them.

It must be seen from the number, the variety and the character of all these papers, that the Alabama Medical Association sets its standard of excellence very high. These transactions forcibly illustrate the fact that medical enterprise and scientific attainment are not matters of monopoly, and that no section, however favored, can claim exclusive possession of wisdom.

Archives of Dermatology; a Quarterly Journal of Skin and Venereal Diseases. Edited by L. DUNCAN BULKLEY, A.M., M.D. New York: G. P. Putnam's Sons.

THIS new journal has appeared promptly according to the announcement. The Editor has enlisted, as co-workers, many of the specialists in these two branches of medicine in New York, Philadelphia and Boston, and there should be no reason why it may not be successful. Its purpose is to adapt it to the wants of the general profession and to give it a practical character, while it is intended to record also all that is new and valuable in cutaneous and venereal diseases.

The subject-matter is arranged much after the manner of the *Vierteljahrsschrift für Dermatologie und Syphilis*, as follows:—I. Original Communications. II. Transactions of the New York Dermatological Society. III. Clinical Reports. IV. Extracts and Translations. V. Digest of Dermatological Literature. VI. Reviews and Book Notices. VII. Correspondence and Miscellanies.

The first number contains several interesting communications, and the work under its various divisions seems, on the whole, to have been carefully done, although some looseness, inevitable, perhaps, at the start, is apparent in the arrangement of the subject-matter. Its appearance is handsome. We trust that it may receive a generous support from the profession throughout the country.

The Medical Register for Massachusetts. By F. H. BROWN, M.D. 1874.

EVER since the publication of the *Medical Register*, in 1873, a want has been felt among the profession for some similar work, which should take a wider range and include the whole State. It is a matter of congratulation that the same gentleman who so ably prepared the *Boston Register* should have undertaken the supervision of the book which has just been published. It forms even a more complete register of the State than the other did of the city.

A complete list of all the Medical Associations and Societies throughout the State is given, together with a list of officers, times and places of meeting, and a brief sketch of each. A list of all the hospitals and dispensaries follows, with the names of the medical and surgical staffs of each, and, what is of far more importance, the object for which each was established, and the method of obtaining the admission of patients. The various benevolent and charitable associations and asylums are also given, with full particulars as to the admission of inmates, and the names of officers. Then follows an alphabetical directory of the Massachusetts Medical Society, giving the residence, date of admission to the Society, the date of academic and professional degrees, official positions held and the various books and articles written by each member. A local list is also given, in which, under the name of each town and city in the State, are placed the names of members of the Society residing there.

A large amount of very valuable miscellaneous matter is also given, such as the rules and regulations of the Army and Navy medical service, the Pension Bureau, the statutes and ordinances affecting physicians and others in their relation to the State and local Boards of Health, besides a great deal of information on many kindred topics, which medical men are frequently asked about, but are rarely able to answer satisfactorily.

Like its predecessor, this book is very valuable; and while its author does not claim perfect accuracy in its pages, he may with justice take to himself the credit of having prepared a work which will be sought after and frequently consulted.

SLIPPERY ELM BOUGIES.—Dr. J. D. Moncure recommends the use of bougies prepared from the ordinary slippery-elm bark found in the drug stores, in the treatment of organic stricture of the urethra, considering the instrument preferable to all others for the following reasons:—

1. It can be more readily introduced than any other, because it is self-lubricating, and can be made as small as needed.

2. It is safest, because so flexible that, when properly prepared, it is impossible to inflict any injury.

3. It is the quickest in its action, as, like the sponge-tent, though in a less degree, it absorbs the moisture, and while in the stricture dilates the opening to almost double its original size.

4. It is far less irritating, and, indeed, is sometimes soothing to the inflamed mucous membrane.

5. It can always be introduced into any stricture through which the smallest continuous stream of urine can pass.

6. It requires no special amount of skill on the part of the operator to secure its introduction.—*Virginia Medical Monthly*, Sept. 26.

EMPLASTRUM HYDRARGYRI IN SYPHILIS.—Prof. Dontrelepont recommends the local application *emplastrum hydrargyri* in cases of syphilis. He states, that he treated most of the external symptoms with this plaster, and with the best results. In indurated chancres he observed, that, under the influence of this plaster, the base of the ulcer rapidly cleared up, while from the periphery a process of cicatrization was quickly established, the induration meanwhile disappearing.—*Allegm. Med. Centr. Zeitung*.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 29, 1874.

WE are happy to report that the most gratifying success attends the movement for the new building for the Medical School. The meeting was all that could be desired, the speeches were eloquent, simple and to the point, and the committee well chosen. At the close, there was much enthusiasm.

The meeting has been reported so carefully that we think it necessary to give only a brief account of the proceedings. Ex-Governor Clifford, who presided, remarked that he might stand as an impartial witness of the purpose of the meeting. He deplored the neglect under which the school had suffered, in spite of its great merits and the services it had rendered. "If the School," he said, "had given but one Jeffries Wyman out of its 2,400 graduates; if, setting aside the bright names of the living and the dead, it had done nothing more, it would be entitled to the efforts of the community." President Eliot made an admirable speech, which he began by explaining that the movement originated with the profession, not with the authorities of the University. He detailed the progress which the School had made and dwelt upon its needs. He was particularly emphatic on the exposure of the Museum, concerning which we give his own words:—

"Our second need is to provide a safe deposit for one of the most precious anatomical museums in the country—one of untold value. I have been asked, why not insure the museum, so that when it is burned you can replace it? You might as well talk of insuring the Sistine Madonna. The loss would be irreparable. You could not replace it. We have already suffered much in this country from the destruction of medical museums. I am filled with apprehensions whenever I go to that building, at the immense risk of fire. There is but one mode of securing the collection, and that is by depositing it in a fire-proof building. We ask money for this specific purpose—to secure this museum, which has been the fruit of so much labor and devotion."

Dr. Holmes followed with a very eloquent address that will be long remembered, by those that heard it, as a very happy effort. We must be permitted to quote at some length from the part showing the claims which the profession has on the public:—

"The physician's life is one of sacrifice. He gives up not only his ease, if necessary, his health, and even his life, but what is dearer to some men, I might almost say, than any of these, namely, his habits. He drops his novel with the last chapter unread; he leaves the theatre with the fifth act just working itself up to agony; he gets up from a meal that is untasted; he leaves his pillow unpressed, or springs from it in the dead of night to brave the wildest storms of rain or snow; he has not an hour by night or day when you cannot summon him as if he were a slave, and you were his master. He does more than the good Samaritan—he goes to the wayside to look for the wounded travellers and carries them in his ambulance to his hospital, which

is an inn where there is no landlord to pay. He will stoop to wash your feet, if you are bruised and maimed, and do for you more than menial service at the call of humanity.

These are his sacrifices—what are your gains? The surgeon is constantly saving life. Where would you be without his aid in a case of strangulated hernia?

"And in woman's special hour of anguish, what do not she and those that love her often owe to the skill and care by which two precious lives are guarded or rescued? If the physician has not so often as the surgeon or the obstetrician the certainty that he has saved his patient from impending death, he cannot doubt that the measures he has taken not very rarely turn the uncertain balance in his favor.

"As our cities grow larger and more densely populated, every year adds to the dangers arising from local causes of disease. We know too much of this practically here in Boston, where the death-rate is higher, I believe, than in any of our northern cities. We know, also, the diligent labors of our State Board of Health in the investigation of the sources of sickness and mortality, and their suppression. We have good reason to hope that their efforts will, if seconded heartily by the authorities, result in a great improvement in the health of a city which has prided itself on its freedom from malaria, and its care of citizens.

"To have good surgeons, obstetricians, physicians, boards of health, you must have good medical schools, and sound methods of instruction. We make no secret of the fact that we are not satisfied with the methods of instruction which were long followed in this school, and which prevail very largely throughout this country at the present day. They were as good, perhaps, as could have been expected in a new country, but Massachusetts is not a new country, at any rate, and Boston is not a new city, and Harvard University is the oldest in the land. Its medical department has taken the lead in the great educational reform, the leading aim of which is to send into your families men who shall be more able to help you in your hour of pain and danger, to make the coming into life and the going out as nearly like the hours of waking in the morning, and of closing the eyes in slumber at night as is permitted by the conditions under which we come into being."

Dr. E. H. Clarke regretted that the movement had not been made earlier, but explained that, while the old system lasted, delicacy did not permit the Faculty to take any part in it:

"Under the old régime, the college was made to contribute to the pockets of the professors in accordance with the number of students they graduated; and to ask for money to build a larger school was equivalent to asking for more money for their own pockets. This has all been changed. Professors and teachers stand on the same footing as in other departments. Much of the teaching is gratuitous. A better course of teaching is now carried on than in any other college in the country."

The Rev. E. E. Hale showed that the credit of the city is at stake to support the institution, which is one of its greatest honors. He said, "the truth is, that our reputation as a place where medicine is taught, and well taught, is far too precious to be put in question." And again: "We mean that the young men of New England, as they seek medical education, shall find here as good as they can find anywhere. We will enlarge our resources till, for every man, that shall be true."

Before the close of the meeting, a committee of fifty was appointed, which subsequently elected Dr. J. Collins Warren, Secretary, and prepared the following address:

"The Harvard Medical School, by its new system of medical instruction, now in successful operation, has effected an improvement in this branch of education of great value to the community. The high standard now set by the school is a radical change from the old, imperfect system of education, and the degree obtained from this school is a certificate of a more thorough education than can be obtained elsewhere in this country. The new system, by greatly increasing the amount of instruction, and particularly of laboratory instruction, requires more room than can be obtained in the present building. The lecture-rooms are small in size, and few in number, and the laboratories are imperfectly appointed, and in every way unsuited to the present wants of the school. The museum of anatomy, which is, perhaps, the best collection of its kind in this country, requires more room for its natural expansion, and for the reception of gifts which would come, and, indeed, have been promised, provided a receptacle should be offered them. The danger of fire to the present building is great, and the building itself is totally inadequate for the purpose of teaching. In the opinion of the undersigned, a new building, on a new site, is absolutely necessary, to enable the school to continue and enlarge its important work, and for this purpose the sum of two hundred thousand dollars should be raised. The community is earnestly requested to aid in this undertaking.

"Contributions may be sent to George Higginson, treasurer, 40 State Street."

As we have already said, the movement is going on in the most satisfactory manner, the community is responding nobly to the appeal, and there is no reason to doubt the success of the undertaking. To attain this as soon as possible, we would urge all members of the profession to lend their aid and to coöperate with the committee. We hope that the graduates of the school, both in Boston and elsewhere, will remember their Alma Mater, and, in proportion to their means and influence, give her the assistance which shall open to her even a higher career than that of the past.

A LONG step forward was taken last week in behalf of the public health of Boston. A communication was received by the Aldermen from the Committee on Sewers, calling attention to the danger to health in certain parts of the city, caused by furnishing a copious supply of aqueduct water before any provision is made for the equally copious waste and sewage produced in consequence. The soil around dwelling-houses ordinarily absorbs the sewage of the inmates when the water used is pumped from wells, but when the supply comes from the public water-works, the primitive methods of drainage into back yards will no longer avail, and dangerous nuisances result. The only reasonable course to pursue is that pointed out in the Committee's communication, namely, to put the sewers down before the water-pipes are laid. Such a course may savor of hardship to many suburban residents who have a prospect of years of waiting before the proper street-drains are laid in the thinly settled sections; but we believe it would be altogether the best policy to make the rule a fixed and unalterable one—that the sewers shall go before the service-pipes. The

Board of Health is well aware of the very dangerous conditions which have arisen in consequence of this indiscriminate supply of Cochituate water to houses upon undrained territory; they have scores of nuisances reported to them, in which they see abatement to be impracticable because of the blind way in which matters have been administered with regard to the relations of sewage and water. It has been observed by medical men in Dorchester that typhoid fever was almost unheard of before annexation, but that since the ground was disturbed for laying the Cochituate water-pipes, an unaccountable number of cases have developed; the water-supply was rapidly pushed forward as a deserved concession for the increased taxation to which the newly annexed territory was subjected, while the sewers await the uncertain chances of the future, the willingness of landholders to pay the expenses and the alacrity of the city departments in doing the work.

This is a matter to be seriously considered, not only in Boston, but in every community where the water-supply is in common by means of aqueducts. Many of the cities and larger towns of this State have recently shown a commendable enterprise in introducing to their inhabitants an abundant gift of pure water, and so far they have done much to promote the public health; but the gift will carry fatal consequences with it unless coincidentally the most liberal policy with regard to drainage is carried out. We wish the matter might be compassed by statute, compelling the establishment of efficient drainage as an antecedent condition to the taking of water from a common source of supply. And we wish, also, that the various departments of public service in every city were less at loggerheads in promoting the public good.

THE ANTISEPTIC PROPERTIES OF SALICYLIC ACID.—This acid can be readily composed from carbolic acid and carbonic acid; and, on heating above the boiling point, it is decomposed into these substances. Professors Kolbe and Thiersch have made experiments concerning its power to oppose processes of fermentation and putrefaction, and to prove a good antiseptic.

To ascertain how salicylic acid acted on ferments, some amygdalin was dissolved in water, a small quantity of the acid was then mixed with the solution and an emulsion of sweet almonds added. In a quarter of an hour, by which time a second mixture of almond emulsion and amygdalin without the acid smelt strongly of bitter almond oil, the mixture containing the acid had not the least trace of such a smell.

Mustard-seed powder, which, in luke-warm water, soon gives a strong smell of mustard oil, gives no such smell if a very little salicylic acid be previously mixed with it.

If a solution of grape sugar be mixed with a little salicylic acid (a thousandth part at the most), yeast has afterwards no action, and a sugar solution already in fermentation ceases to ferment when a small quantity of the acid is added. A thousandth of salicylic acid added to beer suffices to preserve it from injury through fungus growth.

Fresh and pure cow's milk, with 0.4 per cent. of salicylic acid added, and left in an open vessel, at a temperature of 64.4° Fahr., was thirty-six hours

later in curdling than an equal quantity of the same milk beside it, which was without the acid. The action of a little acid delays the souring and coagulation still longer. The milk continues to taste well; the taste of the small amount of acid is not perceptible.

Fresh urine is kept from decomposition by the addition of a small quantity of salicylic acid.

Fresh meat rubbed with the acid will keep for weeks in the air.

Prof. Thiersch has made some experiments in the Leipzig Hospital as to the antiseptic action of salicylic acid, and its use in surgery. He says that when strewn (either by itself or mixed with starch) on confused wounds not yet cleansed, and on scurfy, gangrenous surfaces, salicylic acid destroys for a long time the putrid odor without any inflammatory action of importance. In solution of one part of the acid, three parts of phosphate of soda, and fifty parts of water, it favors the coating over of granulation surfaces. In its application to fresh wounds, Dr. Thiersch is of opinion that salicylic acid has all the advantages of carbolic acid without its inconveniences.—*The London Medical Record*, Sept. 23, 1874.

In the *Berliner Klinischer Wochenschrift*, No. 15, 1872, appeared an article by Prof. Dr. Beneke, of Marburg, "On a substitute for Animal Food for Convalescents, in various Diseases of the Stomach and Intestinal Canal, and for Poor Patients." H. Hartenstein was induced by the above article, and following the suggestions therein contained, to prepare for sale, under the name of "Leguminose," a powder for making soup, composed of a mixture of leguminous and cereal meal.

In an article in the *Berliner Klinischer Wochenschrift*, 1874, No. 22, Prof. Beneke expresses approval of the Leguminose as practically fulfilling every indication for which it is intended. It has been established beyond a doubt, by careful chemical analysis, that meals of all kinds contain a large amount of nourishing matter, pure leguminous meal being not far behind beef in this respect. Being freed from any shreds of cellulose and reduced to the very finest state of subdivision, this preparation has been made of extremely easy digestion. In addition to its highly nutrient properties and easy digestibility, its great cheapness should not be left unmentioned, the cost being only 15 groschen (34 cents) per pound, which renders it very useful as a diet for the poorer classes. By the admixture of cereal meal, also very finely divided, the proportion of nitrogenous to non-nitrogenous matter is made to vary, in the four different mixtures now in the market, standing respectively as 1:2, 3; 1:3, 3; 1:3, 9; 1:4, 8, thus being equivalent, in order, to the proportions found in beef, milk, breast-milk and the mixed food of adults. It is shown, by most careful analysis, that the different kinds of meal contain 10 to 12.7 per cent. water, whereas beef contains nearly 75 per cent., and cow's milk 86 per cent. One pound of fine meal contains, therefore, three and one half times more solid constituents than meat and more than seven times as much as cow's milk.

The method of preparing the soup for use is to stir slowly a heaping tablespoonful of the powder in a soup-plate of water, and then boil thoroughly for half an hour and add salt. The taste is said to be agreeable when thus carefully prepared, though should any taste of the raw peas or lentils remain behind, a little Liebig's extract of beef can be added. When this disagreeable taste cannot be got rid of, it is suggested by Dr. Beneke that the quality of water with which the soup was made may have something to do with it, and that if it is very hard a little soda should be added.

As the percentage of fat in these meals is small, the non-nitrogenous elements being mainly represented by amylum, it is recommended, when fat is particularly indicated, as in atrophied children, consumptives and convalescents, to add to the prepared soup one to two teaspoonfuls of cream. When, for instance, the proportion of nitrogenous to non-nitrogenous matter desired is 1:3, 3, Dr. Beneke employs mixture 1 (1:2, 3), adding the cream as above.

With regard to the objection, which naturally suggests itself, that leguminous articles of diet cause flatulency, no mention is made by those who have used it of any such trouble having been produced, and it probably only occurs when the peas or beans are prepared in the ordinary way.

After the second year, the system requires a small quantity of vegetable acid or of salts containing it. As leguminose contains none, when this is used exclusively, the deficiency should be made up by giving lemonade, compote, fruit jelly or wine containing it. When the stimulating effect of animal food is indicated, this can be obtained by the addition of Liebig's extract of beef, rich in creatinine and the salts of potash.

Dr. Beneke, in his endorsement of the merits of the above preparation, is supported by equally favorable reports from a large number of physicians of respectable standing in different parts of Germany who have used it as an article of diet for patients with impaired organs of digestion, for infants deprived of the breast, where cow's milk is not well tolerated in any form, for atrophied and scrofulous children, for convalescents from typhoid fever, and for consumptives; also during the acute stages of disease, as of acute rheumatism and of typhoid fever.

Should it be made easily obtainable in this country, at a relatively cheap price, the leguminose would certainly merit a trial at the hands of the profession, with prospects of proving a very superior article of diet for infants and for the sick chamber.

MEDICAL SCIENCE (?) IN SPAIN.—A correspondent, writing from Madrid, gives an account of a few of his patients, and the course of treatment to which they had been subjected prior to having consulted him. He says that one of the prescribers of the nastinesses described is an ex-Court physician, and that another fills a professorial chair.

CASE I.—D. F. L., aged 35, having chronic, articular rheumatism, was ordered nine days' baths of archena; after that, to observe the "Cuarentena" (or forty days); to take no medicine whatever. Being worse than ever at the end of that period, he was ordered friction all over the body with a slush composed of equal parts of smashed earth-worms, rancid oil, and putrid mule's dung, to be applied assiduously for the mysterious nine days, night and morning.

CASE II.—Senora B. de L., a "noble lady," aged 32, recently confined, had a small abscess of the left breast. She was attended by an ex-Court physician, who, when he had exhausted all his remedial skill, ordered a poultice three times a day of white pigeon's dung, saying that if that did not cure her, nothing else would.

CASE III.—Dona Francena A., aged 23, had been treated for dyspepsia with amenorrhœa for ten months. Her last prescription was "nine days'" poultices of fresh human excrement. She could only endure this disgusting barbarism two days.

CASE IV.—Eulogia G., a servant-girl, aged 19, had chronic diarrhœa, and was ordered to take a tumblerful of child's urine every morning, fasting, for nine days. She could take such a dose only three days.

CASE V.—Pablo Insari, aged 30, plasterer, had had six months' doctoring for heart-disease following rheumatism. The last prescription was a newly killed pigeon split open down the middle and applied over the left chest for "nine days," and to go to work.

CASE VI.—Senor Don M. H., mine-proprietor, aged 39, had cardiac dropsy. His last prescription was, a sheep to be killed daily, and the skin, with the wool on, to be wrapped round the body tightly.

CASE VII. is, perhaps, the strangest and most ridiculous of all. Miss S. A., an American lady, sent for me, and said, "Doctor, I've got the gripes for the last two or three days; and yesterday, feeling no better, according to a notion in my country (Pittsburgh), I took eight or ten black pepper-corns, wrapped them up in a piece of your *London Times* (they must be swallowed in printed paper). I guess that they have stuck somewhere, and I feel awful bad; and I want you to give me something right off to get me rid of them

pepper-corns and your English paper. Had I only got the *New York Herald*, they would have gone slick down." A small dose of castor-oil shortly set her right.

By way of confirmatory evidence, our correspondent gives the following literal translation of a paragraph in the *Correspondencia* journal:—

"In the slaughter-house of Madrid, which is under Government supervision, there is being committed a repugnant abuse, which, for the sake of health and public decency, and at the request of many persons, we denounce to the Senor Alcalde (Chief Civil Magistrate) of this city. In the above-named establishment, they consent or permit that the sick, with arms and legs at times full of ulcers and wounds, to lie inside the carcasses of animals while hardly yet dead. Apart from the horror and disgust that this produces in the persons that witness these things, it might produce disastrous effects on the public health; and we doubt not that such scandalous acts will have an efficacious and prompt correction. We shall be on the look-out about this matter."—*The British Medical Journal*.

Correspondence.

CAUSE OF TYPHOID FEVER.

MESSRS. EDITORS,—In the JOURNAL for October 15th, you quoted Dr. E. M. Snow's views upon this topic, which, if not ignoring "foul emanations from sink drains, cess-pools and privy-vaults" as an active agent in producing typhoid fever, places them in a somewhat trivial light. A few facts, already well known and published will, I think, give your readers a different opinion (at least in part) from Dr. Snow's. In the JOURNALS for Sept. 14th, 21st and 28th, 1865, may be found the elaborate "Report upon the Epidemic occurring at Maplewood Young Ladies' Seminary, Pittsfield, Mass., in July and August, 1864." The facts in this notable case are most ably set forth, by Drs. Palmer, Earl and Lord, the investigating committee, and no one can doubt but that *fifty-six* (56) persons, out of *one hundred and twelve* (112) who resided in the Institute, had typhoid fever as a direct result of foul emanations from neglected cess-pools and privy vaults; of the fifty-six, sixteen died. Ten or twelve others were ill, but their cases are not reported as typhoid fever, although the history strongly points that way. All interested in this important subject should recur to the JOURNALS mentioned above, or procure the report in pamphlet form. In the JOURNAL for Feb. 4th, 1869, may be found a discussion upon the causes of typhoid fever by members of the Boston Society for Medical Improvement. A number of instances corroborating the idea that this disease does arise from foul exhalations are cited. Some doubted, because a leaky drain was not always discovered; but, "Dr. George Derby thought we were not justified in the conclusions that no local cause existed, because none was found at the first search; a more careful examination frequently revealed an accumulation of foul material that had previously escaped notice." The case of the Clifton House was referred to. Of more recent date is the sickness that took place at Mt. Desert, Maine. Dr. Snow must have heard of the cases of typhoid fever, and their ascertained cause, that occurred in an institution of learning not many miles from his own residence. It was the "Maplewood Fever" over again; there being, however, only about a third as many sick ones. Two years since, I had five cases of typhoid fever in one house at the same time. There were neither rotten apples nor other vegetables about the premises, but there *was* a most filthy vault, the emanations from which these persons were compelled to inhale. Near, in another dwelling, were six more cases under my care. Six cases were also under treatment by other physicians, a total of seventeen cases within five hundred feet of each other. Decayed vegetable matter was not a prominent cause in any of these; foul emanations, clearly, were the cause in the house first invaded by the disease. That decayed vegetables were also a cause, I do not doubt. In many instances of

local outbreaks of typhoid fever, we cannot fix upon a very satisfactory cause. From Nov. 1st, 1873, to May 1st, 1874, I had five cases in one family, no two ill at the same time. A most careful search revealed no local cause. It is likely there are causes we cannot understand. Dr. Snow asserts that typhoid fever is more frequent in the country than in the city. How does he know this? Furthermore, if this be correct, does it prove his premises as to causation? We think not, for, according to our experience, the vilest "back-houses," and the most abominable cess-pools are to be found in the country and villages, such as are not tolerated for a moment in cities.

Pawtucket, R. I., Oct. 17, 1874.

J. O. WHITNEY.

MESSRS. EDITORS,—The following letter, from a gentleman temporarily residing in Paris, may be considered of sufficient interest to have a place in your JOURNAL. The case seems remarkable in two respects:—1st, on account of the diagnosis of helminthia, and, 2d, in consideration of the treatment, which was followed by a cessation of the convulsions.

Brookline, Oct. 21, 1874.

S. SALISBURY.

"On Sunday afternoon, about 1.30, whilst at dinner, our dear H.* was suddenly seized with a convulsion of the most alarming and violent nature, becoming utterly rigid, eyes fixed, pupils much dilated, teeth clinched, accompanied with the most distressing gasping for breath.

"We immediately sent for a physician, and, in the meantime, put him into a warm bath, which seemed to have no effect whatever; and he could not be made to swallow anything. After the delay of twenty minutes at least, one of several doctors who had been sent for arrived, and was soon followed by two others, all of whom began the attempt to recover to life that which seemed beyond all human aid. Artificial respiration having been carried on for some time, as well as hot baths and throwing cold water in the face, one of the physicians suggested a subcutaneous injection of morphine, which seemed to relieve the violence of the spasms.

Soon after this, Sir John Cormack, the physician we had previously employed, having arrived, I turned over to him the management of the case, in consultation with the others. The case being still most desperate, and requiring efficient remedies, it was decided to again inject morphine (instruments being at hand, as a last resort, to insert a tube into the trachea). The second injection of morphine seemed very soon to calm him, and he became quite thoroughly narcotized, after having been in most severe convulsions for two hours. He fell into a gentle sleep, which lasted two hours, and then awoke perfectly clear in his mind, recognizing all of us, and from that moment has been steadily improving; and, save more or less excitement and restlessness, is quite himself again.

"The physicians who have seen this case consider it a most remarkable one in many respects, although they have known of similar ones. They are of unanimous opinion that there is no disease of the brain, heart or other vital organ, but it is to be attributed to a *worm*. The doctor has him under treatment for that disease.

"*Later*.—I am thankful to say that H. has passed a large worm and subsequently a smaller one, and is doing well.

Paris, September 22, 1874.

HOSPITAL APPOINTMENTS.

MESSRS. EDITORS,—Not being aware that there are any vacancies to be filled in either of the hospitals in this city, it surely cannot be considered anything wrong for an outsider to say a word upon this subject. Some of us in the profession have been called upon to testify to the good standing and professional ability of one or another medical man. It is rather hard for some persons to say "no" to such an application, or to any other. One says it with the feeling that the applicant looks upon him afterwards as a personal

* Aged seven years.

enemy. The committee who have in charge nominations to fill vacancies are the individuals who should ask for an account of qualifications, and for nominations. Personal friendship, on the part of Trustees, will, of course, enter into every election for every office; and where an institution is carried on under the direction of Trustees elected by a political body, and frequently changed, political, as well as personal, friendship becomes, sometimes, an element. It is for the advantage of a hospital to have its government a permanency. This is desirable on every account. Men become interested in an institution to which they are long attached. They learn its wants. They become acquainted with its officers, and their ways of administration. They become qualified to advise and direct in its matters of finance. Although they may arrive at the age of fogginess, there are always young ones enough to counterbalance too rigid economy and to prevent elections of physicians and surgeons too old for work.

This subject of appointments has long been in the mind of the writer, who feels entitled to speak upon the subject, having himself held a hospital office, though he never asked for one. It seems to him that the following plan would be a good one. When a vacancy is about to occur, let the fact be made known by advertisement that any one *may* apply for the office who wishes, and let him send in as many names of medical men as references as he may choose, but no testimonials from his referees. The committee of nomination should be the party to seek information concerning ability, qualifications and character; and although it would be as well for an applicant to show his person, any solicitation from political acquaintances, any entreaties from family and friendly bores, should be done away with. A referee could then, without the slightest inconvenience, express his opinion concerning an applicant for a position, and his comparative judgment between two or more applicants.

Men who ask you for certificates of qualification are often very much vexed when they discover that, either before or after writing them, you have also written the same for others. This is truly a piece of self-sufficiency. That one has said that Dr. A. is qualified to do a certain work, is only evidence that he knows or thinks he knows it. It is not evidence that he has not the same knowledge of the ability of Dr. X. or of Dr. Z. His giving a certificate to that effect does not make him a partisan of Dr. A., and it would be as well, though some do not like to do so, to inform one applicant for a certificate that you are willing to furnish it, but that you have already done the same for another.

Some of the readers of the JOURNAL might prefer the system by *concours*. That will do well in some places. It has been adopted to a certain extent in one of the city institutions. On a more extended scale, we do not believe it would be either possible or useful in this country. * * *

Obituary.

SEWALL G. BURNAP.

AT the annual meeting of the Thurber Medical Association, held this day, the following resolutions were passed:—

Whereas, Our brother, Sewall G. Burnap, of Holliston, has been removed from the scene of his long and useful labors on earth, and, as we trust, to a happy and everlasting home in the life which succeeds this, therefore

Resolved, That, while we bear our willing testimony to his character as a man and physician and deplore his absence from this the annual meeting of our Association, we tender to his wife and other relatives the sincere expression of our condolence and sympathy in their affliction, and commend them to the love of that Being who doeth all things well.

Resolved, that a copy of these resolutions be forwarded to the family of the deceased, the Boston Medical and Surgical Journal, and the *Milford Journal*.

J. ALLEN FAY, M.D., *Secretary*.

Milford, Mass., October 22, 1874.

Medical Miscellany.

BIS DAT QUI CITO DAT.

A SCHOOL of Dental Surgery is about to be formed in Vienna.

THE next Annual Meeting of the Association of German Naturalists and Physicians will be held at Gratz in Bohemia.

KIN-SI I-SETZU, or *Modern Medical News*, is the title of a new bi-monthly medical journal, published in the Japanese language at Yedo, by the imperial government. It has a guaranteed circulation of one thousand copies.

MR. GEORGE R. LABAN, 111 years old, as distinctly shown by the records of his christening, attended the State fair at Easton, Pa., last week. The old man is talkative and intelligent, has a fine chest, shows little emaciation, uses tobacco, and can do considerable work without fatigue.—*Ex.*

CHOLERA NOT INFLUENCED BY TEMPERATURE.—The cholera raged undiminished in Moscow in 1830 while the temperature was -4° F., and at Orenburg at a temperature of -24° F. In Nowgorod, in 1821, typhoid fever broke out at a temperature of -35° F., while it appeared at Edinburgh in 1817, during a period of exceptionally hot weather.—*Ziemssen's Handbuch.*

DISLOCATION FORWARDS OF THE STYLOID END OF THE ULNA.—An instance of this rare displacement is reported by Mr. T. E. Purdom in the *Edinburgh Medical Journal* (Oct. 1874), produced by having the hand and forearm drawn into a planing machine. "The hand and wrist were much twisted. On examination, the limb had a curious appearance, there being a hollow on the ulnar side posteriorly, while in front, just above the wrist, a hard swelling was felt and diagnosticated to be the styloid end of the ulna, displaced forwards."

THE MAINE GENERAL HOSPITAL, at Portland, was dedicated on October 21st. Hon. J. B. Brown, President of the corporation, presided, and many distinguished people of the State were present, including the leading medical men. Gov. Dingley made an able dedicatory address, sketching its history, congratulating the people upon its completion and declaring its benefits to the suffering and to the profession. He was followed by President Chamberlain, of Bowdoin College, and others. A large concourse was present, who inspected the building after the ceremonies. Dr. Charles O. Hunt is to be the resident physician.

ANointing WITH COCOA BUTTER IN SCARLET FEVER.—Upon the recommendation of Schneeman, the anointing of the body with fat has been extensively practised in Germany during the past ten years, with the view of lowering the temperature, and hastening the desquamation. Dr. Bayles suggests, in this connection, the employment of cocoa butter, as producing a more cooling and refreshing effect upon the patient, and emitting a more agreeable odor in the sick chamber. This agent, on account of its solid consistence, is more readily applied than either fat or oil, and is more easily absorbed by the skin. Furthermore it is thought to afford the system a certain amount of nourishment.

In severe fevers, the entire surface of the body should be rubbed with this substance every hour, or at least once every four hours. Its application is also recommended in typhoid fever, in cases where the patients manifest a dread of water, or where the application of water is impossible; likewise in other inflammatory diseases, especially the severer forms of inflammatory rheumatism, and in tuberculosis. *Giornale Veneto di scienze Med.*, Ser. 3, Tom. 21, 1874.—*Allg. Med. Central-Zeitung*, 16th Sept. 1874.

INCISION VERSUS EXCISION OF THE KNEE IN CHILDREN.—At the last annual meeting of the British Medical Association, Dr. Edward Lund argued that, in a large proportion of cases under twelve to fifteen years of age, the incision was the better operation. The mode of procedure was peculiar, inasmuch as he only opened the joint by an incision in its external side, and through this, by means of a curved cutting hooked knife, which was passed into the joint, or so much of the natural cavity as remained, all adhesions were broken down, or cut through, so as to permit the bones to be replaced in a straight line. It was rarely possible to do this immediately, on account of the construction of the tendons; but several contrivances were shown by which, by the use of elastic India-rubber bands, long-continued slight pressure produced excellent results, and firm, straight ankylosis of the knee was the result. It was, however, one essential condition of the operation that it should be conducted entirely upon Mr. Lister's system of antiseptic dressing, for without these precautions it might, in many cases, prove a hazardous proceeding.—*The British Medical Journal*.

"NOTHING NEW UNDER THE SUN."—Doctor Mordtmann, of Constantinople, publishes, in the *Gazette Médicale de l'Orient*, some curious details he has discovered in some old Oriental chronicles, tending to show that the Siamese twins, as well as the sisters Milly and Christine, had prototypes in former times. According to these Byzantine chronicles, there came from Armenia to Constantinople in the year 744, a monster, consisting of two children born of one mother. These children were attached to one another at the epigastrium, so that they faced each other, the other parts of their bodies being regularly formed. During their sojourn in the Byzantine capital numbers flocked to see this monstrosity; but as the twins were superstitiously regarded by the ecclesiastical authorities as being of bad augury, they were expelled the city, to return again when a comparatively enlightened emperor ascended the throne of the Cæsars. One of these twins died, and one of the most skillful physicians endeavored to divide the survivor from the corpse at the point of juncture, in the hope of saving his life. The operation, however, only served to prolong its duration for three days.—*The London Medical Record*.

NOTES AND QUERIES.

THE DOCTORS (OF DIVINITY) DISAGREE.—The Bishop of Lincoln says that cremation destroys all hope of a "resurrection of the body." The Bishop of Manchester finds abundant reason for believing the contrary. Meanwhile, until this important matter is settled, let us be buried in the old fashioned way and enjoy the prospect of having our corruptible part washed away into neighboring streamlets and wells. ***

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending October 17, 1874.*

Boston, 133; Worcester, 18; Lowell, 24; Milford, 3; Chelsea, 4; Cambridge, 23; Salem, 15; Lawrence, 16; Springfield, 9; Lynn, 7; Gloucester, 3; Fitchburg, 1; Newburyport, 5; Somerville, 15; Fall River, 16; Haverhill, 7; Holyoke, 9. Total, 308.

Prevalent Diseases.—Consumption, 48; cholera infantum, 27; scarlet fever, 17; typhoid fever, 17; pneumonia, 15; diarrhoea and dysentery, 10.

Boston reports one death from cerebro-spinal meningitis.

CHAS. F. FOLSOM, M.D.

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 24, 140. Males, 71; females, 69. Accident, 5; apoplexy, 1; inflammation of the bowels, 2; disease of the bladder, 1; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 4; burned, 3; cyanosis, 1; cancer, 2; cholera infantum, 6; cholera morbus, 1; consumption, 30; convulsions, 3; debility, 3; diarrhoea, 6; dropsy of the brain, 3; dysentery, 1; diphtheria, 1; diabetes, 1; exhaustion, 1; intermittent fever, 1; scarlet fever, 4; typhoid fever, 8; gastritis, 1; gastric ulcer, 1; disease of the heart, 4; disease of the kidneys, 1; congestion of the lungs, 3; inflammation of the lungs, 3; laryngitis, 1; marasmus, 11; old age, 1; paralysis, 2; premature birth, 7; peritonitis, 2; puerperal disease, 4; pyæmia, 1; quinsy, 2; senile dementia, 1; tabes mesenterica, 1; tetanus, 1; tumor, 1.

Under 5 years of age, 58; between 5 and 20 years, 12; between 20 and 40 years, 31; between 40 and 60 years, 22; over 60 years, 17. Born in the United States, 108; Ireland, 22; other places, 10.

THE

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THURSDAY, NOVEMBER 5, 1874.

[No. 19.

Original Communications.

AMAUROSIS AND AMBLYOPIA TREATED BY THE SUBCUTANEOUS INJECTION OF STRYCHNINE.

By HASKET DERBY, M.D., of Boston.

THE subcutaneous injection of strychnine, for the relief of certain amaurotic and amblyopic affections, is one of the most important modern contributions to ophthalmic therapeutics.

With the introduction of the ophthalmoscope, the use of the term "amaurosis" became seriously restricted. Formerly applied to nearly every failure of vision, unconnected with a visible cause, it gave way to a scientific nomenclature as soon as all the portions of the eye-ball lying behind the crystalline could be seen and their changes realized. Affections of the optic nerve, choroid and retina began to be diagnosed and classified.

There still, however, remained a certain class of cases where failing vision occurred unaccompanied by any tangible organic change. Such affections, as well as those diseases of the optic nerve, characterized by whitening and atrophy, the whole coming under the head of amblyopia and amaurosis, long formed the opprobrium of ophthalmic science. Operative treatment and local applications were here, of course, out of place, while general treatment was, in many cases, of but slight value.

The discovery that strychnine, particularly when used in the shape of local injections, would exert a marked influence in many such cases, was hailed, at first, with a measure of incredulity. So hopeless had these affections been long considered, that a remedy which promised a lasting improvement, and which often exerted an almost instant and perceptible effect, was a long time in making its way into general confidence. So extravagant, too, were some of the claims at first set up for it, so various the diseases to which it was said to be applicable, and so few the reported failures, that sober practitioners, who used the remedy, at first without success, were often discouraged from subsequent trials.

My own experience was at first unfavorable. In case after case, I followed the indications and directions laid down by the advocates of the new remedy for its employment, without success and without even perceptible effect. The first case in which I was able to see an evident good effect was the first of those here reported. Encouraged thus to follow up the method, I have ended by giving it my fullest confidence, and by employing it very generally in these affections. It is not a panacea, it is not a specific. Those who look for instant action, or strikingly brilliant results will, in a large number of instances, meet

with disappointment. But it will often succeed where other remedies fail, and often materially accelerate a cure in cases where all, save the most general remedies, were formerly deemed useless.

Within the limits of a brief article, and in a journal intended for the entire profession, it would be inexpedient to discuss the effect of strychnine on the normal eye, as demonstrated by a careful series of physiological experiments. Hippel has accomplished this task in his work on "The Effect of Strychnine on the Normal and Diseased Eye." And Nagel, in the "Treatment of Amblyopia and Amaurosis by Strychnine," has stated at length the cases in which he found its application of value. I would here simply call attention to one class of cases, in which the use of this remedy has seemed to me particularly indicated, namely, those designated under the name of "amblyopia ex abusu."

It has, for some time, been known that the long-continued, excessive use of alcohol or tobacco sometimes gives rise to a peculiar affection of vision. Its acuteness slowly and regularly diminishes. There is no contraction of the visual field, no break in its continuity, but distant and near objects grow gradually indistinct, the patient often using the expression that everything about him is enveloped in a gradually thickening mist. Glasses are found of no avail for distant objects, though convex lenses for a time sustain the failing powers of the eye for the near. But reading and writing finally become impossible. Ultimately, if the disease progresses, the patient is unable to guide himself about, and blindness may ensue. During all this time, there is no change in the external appearance of the eye. The ophthalmoscope alone reveals a change; at first, a degree of congestion of the optic nerve; towards the end, an atrophic degeneration of the same.

This is the true "amblyopia potatorum," or, more properly, alcohol not being its only cause, "amblyopia ex abusu." I have had the curiosity to look through my own records, in order to ascertain the comparative frequency of its occurrence. It occurred 52 times among 6,602 patients, about .8 per cent. In hospital practice, I am satisfied it occurs more frequently. Of my 52 cases, 16 proceeded from the abuse of tobacco alone, 5 from that of alcohol, 31 from both combined.

Those who have treated these cases previous to the introduction of strychnine injections will all agree as to the slowness with which improvement takes place. It is true that rigid abstinence from the use of the exciting cause, and the employment of tonics will generally arrest the progress of the affection. But gain is excessively slow, frequently, for months, almost imperceptible.

CASE I.—January 9, 1873, I first saw Mr. B., a tall, athletic man, who had always enjoyed excellent health. For a year or more, his vision had steadily decreased, a mist seeming to constantly surround him, and continually thicken. For some time past, reading and writing had had to be given up. Upon inquiring into his habits, I found that for years he had averaged, at least, three drinks of spirits and eight cigars a day.

The whole case presented the usual symptoms of amblyopia ex abusu. The optic nerve had passed the stage of congestion, but did not, as yet, show any marked whitening. Vessels very slightly diminished in calibre. Vision right $\frac{20}{30}$; left $\frac{20}{60}$.

[These fractions are readily appreciated by bearing in mind the fact

that the figures *below* the line denote the number of feet at which an average normal eye would make out a line of print, selected as the test-object, while the figures *above* the line denote the distance at which this line is made out in the present case. The fraction thus formed may be considered as expressing the vision of the patient. When the numerator and denominator are the same, the vision is normal.]

Entire abstinence from alcohol and tobacco was, of course, the first thing insisted on. A tonic was given, and blood taken from the temples by means of the Heurteloup leech. January 15th, there had been a little gain. Vision (V) right $\frac{1}{200}$; left $\frac{1}{200}$. One-fortieth of a grain of nitrate of strychnia was injected in the left temple. Very little improvement followed. The use of the Heurteloup was continued, and another strychnine injection subsequently made, but so little improvement followed that this treatment was given up.

Feb. 20th.—Patient was continuing rigid abstinence, and taking the elixir of the phosphates of iron, quinine and strychnine. V. right $\frac{2}{200}$; left $\frac{1}{200}$, no improvement having occurred for some weeks. The nerves looked decidedly whiter, and the vessels thinner. Mr. B. was haggard, had lost flesh and spirits, seemed nervous and distrait. He was oppressed in walking by a fear of falling. There was a tendency to sleep a large portion of the time. His hearing was less acute, and his memory impaired. April 5th, no change in health or vision. Atrophy of optic nerve more apparent. As a last resort, a thorough course of strychnine injections was proposed.

His vision was now much what it had been in February; right $\frac{2}{200}$; left $\frac{1}{200}$. Below are given the dates and amount of the strychnine injections, as also the improvement in vision, which at once began to occur.

Injectons.	Vision.
April 7th, gr. $\frac{1}{40}$.	
“ 9th, gr. $\frac{1}{20}$.	
“ 12th, gr. $\frac{3}{40}$.	April 12th, right $\frac{2}{200}$; left $\frac{2}{200}$.
“ 14th, gr. $\frac{1}{12}$.	
“ 21st, gr. $\frac{3}{40}$.	
“ 23d, gr. $\frac{1}{10}$.	“ 23d, right $\frac{2}{70}$; left $\frac{2}{100}$.
“ 26th gr. $\frac{1}{8}$.	
May 3d, gr. $\frac{1}{8}$.	
“ 9th, gr. $\frac{1}{8}$.	
“ 20th, gr. $\frac{1}{8}$.	May 20th, right $\frac{2}{50}$; left $\frac{2}{70}$.
“ 29th, gr. $\frac{1}{40}$.	
June 19th, gr. $\frac{1}{4}$.	June 19th (had drank and smoked), right $\frac{2}{70}$; left $\frac{2}{100}$.
“ 26th, gr. $\frac{1}{4}$.	June 26th, right $\frac{2}{30}$; left $\frac{2}{70}$.

The direct connection between the injections and the improvement is here most manifest. The right eye, it will be seen, was restored to very nearly normal vision. The general health had improved, and the patient resumed his business, once more able to read and write with ease.

CASE II.—Mr. R. aged 60, formerly a sea-captain, a thin, wiry man,

who had always enjoyed excellent health, had been for many years, "all his life," an excessive smoker. His average, as far back as he could remember, was about fifteen pipes a day. For three months, his vision had been failing, and he was now unable to read or keep his accounts.

Jan. 1, 1874.—There was deep congestion of each optic nerve. Vision of each eye, $\frac{2}{100}$. Visual fields normal.

Tobacco was ordered to be omitted, and the elixir of the phosphates of iron, quinine and strychnine given internally. At the end of a fortnight, there had been no change in vision. Injections of nitrate of strychnia were now made in either temple, alternately, as follows:—

Injections.	Vision.
Jan. 15th, gr. $\frac{1}{40}$.	
" 17th, gr. $\frac{1}{20}$.	Jan. 17th, $\frac{2}{10}$ each eye.
" 20th, gr. $\frac{3}{40}$.	" 20th, $\frac{2}{10}$ " "
" 23d, gr. $\frac{1}{12}$.	
" 31st, gr. $\frac{3}{40}$.	" 31st, $\frac{2}{10}$ " "
Feb. 2d, gr. $\frac{1}{10}$.	
" 6th, gr. $\frac{1}{8}$.	Feb. 6th, $\frac{2}{10}$ " "
" 13th, gr. $\frac{1}{8}$.	
" 18th, gr. $\frac{1}{8}$.	" 26th, $\frac{2}{10}$ " "

The effect of the injections was almost immediate. Thus the patient would speak of the street-signs as having "brightened up" when he left the office. The rapid progress made will be especially noted.

The next case is a well-marked instance of what used to be called "amaurosis."

CASE III.—Mrs. C., aged 34, had always enjoyed good sight and excellent health. Three years before coming to me, she had passed a season of great anxiety and exceeding fatigue, having lost several members of her family. Soon afterwards, she began to be subject to intermittent obscurations of vision, "something rising before her and leaving a blur that would last several minutes." This symptom occurred more and more frequently, and was accompanied by intense pain across forehead, and pain like a needle through eyes. One day, the vision of the right eye suddenly became very imperfect, and the eye itself was the seat of much pain.

May 17, 1874.—Eyes externally normal. Right, *sees moving hand (very dimly) in one foot*. Nerve whitish, vessels—especially arteries—attenuated. Left, vision $\frac{2}{100}$. Visual field much contracted in every direction. Has much difficulty in getting about at night. Left optic nerve whitish, vessels slightly diminished in calibre.

A powerful tonic was given, and strychnine injections at once commenced.

Injections.	Vision.
May 19th, gr. $\frac{1}{40}$.	
" 21st, gr. $\frac{1}{20}$.	
" 27th, gr. $\frac{3}{40}$.	
" 29th, gr. $\frac{1}{12}$.	May 29th, no change.
June 1st, gr. $\frac{3}{40}$.	
" 3d, gr. $\frac{1}{10}$.	June 3d, right $\frac{2}{10}$; left $\frac{2}{10}$.

June 5th, gr. $\frac{1}{8}$.

" 9th, gr. $\frac{1}{8}$.

" 15th, gr. $\frac{1}{8}$.

" 22d, gr. $\frac{1}{8}$.

" 29th, gr. $\frac{7}{40}$.

July 14th, gr. $\frac{1}{4}$.

June 13th, right $\frac{20}{500}$; left $\frac{20}{500}$.

" 19th, right $\frac{20}{500}$; left $\frac{20}{500}$.

June 26th, vision of each eye $\frac{20}{500}$.

July 14th, " " " " $\frac{20}{500}$.

Sept. 22.—Vision of right $\frac{20}{500}$; field contracted in all directions. Left, vision $\frac{20}{500}$; field very slightly contracted. *Each optic nerve is less white, and the vessels are larger.*

THE TREATMENT OF PERTUSSIS BY INHALATION.

By J. WINTHROP SPOONER, M.D., of Hingham.

IN the JOURNAL dated April 20, 1871, appeared an article by John J. Caldwell, M.D., of Brooklyn, N. Y., entitled "A New and Successful Treatment of Pertussis." The treatment recommended was the following:—

R. Fl. ext. belladonnæ, m v. to x.;
Potass. bromid., ℥i.;
Ammon. bromid., ℥ij.;
Aquæ, ℥ij. M.

Inhale one tablespoonful in the ordinary steam atomizer.

Several successful cases were reported, but since that date I have seen no report of cases treated in that way.

Feeling that we have in this method of treatment a great addition to the therapeutics of a disease often distressing, and sometimes fatal in its results, I have been led to publish a few cases of my own treated in a similar manner. I am in the habit of using a tablespoonful of the above mixture and filling up the glass of the atomizer with water.

CASE I.—April 1st. A boy of 14 has had the disease for two weeks. The cough has been severe and the whoop well marked. Vomits after nearly every meal. The next record is April 5th, which is as follows: Patient has been at the office daily and used the atomizer. His cough has been less since the first inhalation, and he has whooped but once. The vomiting has ceased, and there is present but a slight cough, which is not distressing.

CASES II. and III. were two children (brother and sister) aged 15 and 12. Well-marked symptoms of whooping cough had been present for two weeks. The same remedy was used for four days, under my supervision, with decided abatement of symptoms. As they were improving, I lent them a hand atomizer, which I afterwards understood they used only for a day or two. The cough lingered for several weeks in both cases, although the whoop was never well marked after the use of the atomizer. In fact, during the latter period, the disease seemed to be a simple bronchitis and nasal catarrh, the result of a series of colds, as the patients were very imprudent.

CASE IV.—A child of 3 years had a cough, with febrile symptoms for ten days. Yesterday, for the first time, had a decided whoop. Vomited every meal to-day. Face is swollen, eyes congested, and, this morning, lids adhered from excessive secretion. The atomizer was used twice daily. Improvement commenced at once. From that

date there was no vomiting, the countenance resumed a natural appearance, and at the close of a week the whoop had ceased, and in less than a fortnight not the least trace of the disease was present.

CASES V., VI. and VII. were children of one family, aged eight, five and three years respectively. The disease had existed for about two weeks; the symptoms were mild, but sufficient for diagnosis. Treatment was commenced on June 27th. On June 30th, I saw them again, and there was a decided improvement. At the close of one week from the commencement of treatment they were well.

CASE VIII. happened at the same time with the preceding three, and the history was similar.

CASE IX.—A child of 2 years. I saw her first, July 20th. She whooped for the first time that day. On account of her age, there was difficulty in administering the remedy thoroughly, and perhaps it was on that account that for the first few days there was no perceptible improvement. However, the treatment was continued, and, by the 26th, the symptoms had much abated; and, by the 30th, the patient was well. A little syrup of squills and tolu was used in this case, as a palliative, in the first few days, and this is the only case in which any treatment but the inhalation was used.

CASES X. and XI. were a little girl of seven and her mother. With the former, the cough and whoop had been present for four weeks, and the mother had coughed for two weeks. The health of these patients was delicate, being predisposed to pulmonary disease, and a sister of the lady had died of phthisis, following pertussis, it was said. In both these cases, although the urgent symptoms were relieved, that is, the vomiting ceased and the cough and whoop became much less frequent under treatment, yet the disease went through its regular course in a mild form.

This, then, is the result of my treatment of pertussis by inhalation. When the disease is at all severe, I use the atomizer twice daily until the urgency of the symptoms is relieved, and then continue it once daily until the cough has entirely disappeared. In some cases, I have somewhat varied the proportion of the ingredients, but have made no essential departure from the formula given.

A CASE OF AUTUMNAL CATARRH SUCCESSFULLY TREATED BY GALVANISM.

By W. F. HUTCHINSON, M.D., of Providence, R. I.

It is probable that, before many months, the medical world will have the benefit of the carefully collated statistics, and valuable conclusions drawn from them, in a monograph upon Hay Fever, now in process of preparation by my friend Dr. George M. Beard, of New York, who is already so favorably known to the profession by his numerous published essays, as well as from his treatise upon Medical Electricity, now become standard. Facts have been obtained from more than one thousand doctors in all sections, and the mass of knowledge thus brought together cannot fail, properly arranged, to be of great value to the army of sneezing sufferers, who annually migrate mountainwards, to escape the annoyance and suffering entailed upon them by this particularly uncomfortable disease.

As a specialist in nerve diseases, my view of the pathology of hay fever would, perhaps, naturally be that of a neurosis, even were such view not borne out by facts of symptomatology; and now, I am happy to say, by results of treatment in a case which may be regarded as absolutely typical of the disease, since it is only by actual nerve nutrition that the remedy applied could have had its favorable effect. Whether the poison be a peculiar *materies morbi* in the blood, developing its nerve-irritant properties under the influence of season and the natural debility engendered by the heated term, or whether there be a cause in the nerve centres involving a degeneration of tissue, only aroused into activity by some peculiar stimulus, it is worthless further to discuss in a simple case report, only intended to call attention to a more successful result of treatment than is common in this disease. For, so far as I am aware, there have been very few cases recorded, where autumnal catarrh has been attacked and vanquished in mid career, and this without the administration of a single dose of any kind of medicine. In the commencement of treatment, I explained to my patient that I wished to make an experiment upon her case, which might, or might not, do her any good, but which could certainly do her no harm, as no medicine would be given, and the course pursued would be, in all regards, a sanitary one. She consented, and the result is as follows:—

Miss H. W., aged 38, brunette, height 5 feet 2 inches, and weighing 135 pounds, in vigorous health and easy circumstances, has been a sufferer from autumnal catarrh for twenty years. The onset is upon the 19th day of August, varying only two or three days each year, and the duration until the first severe frost. During all this period, there is no intermission, nor remission, change of climate having been, from family reasons, out of the question. In addition to the usual symptoms of the disease, in an aggravated form, she suffered from a severe pharyngitis, induced by continued sneezing. The most potent excitants are hay, green or dry, and certain flowers, others having no effect. She belongs to a family in which the neurotic temperament is strongly developed, her mother having repeatedly been under treatment for trigeminal neuralgia. Treatment was begun September 5th, by the method known as central galvanization, including the sympathetics. The battery current was derived from the Siemen and Halske series as arranged by the Galvano-Faradic Company, of New York, which, in my opinion, is the most reliable and complete of any battery made. Six cells only were employed—the negative pole at the nape of the neck, and the positive over the solar plexus. This position was maintained five minutes, then changed so as to direct a current from the vertex to the manubrium sterni, promenading the positive electrode over the trachea and bronchi for three minutes more. The sympathetic of each side was then intercalated from the superior cervical ganglion to the vertebra prominens for one minute, and the sitting terminated.

Immediately after each treatment, a marked remission in the symptoms occurred, and Miss W. expressed herself as much more comfortable than just before. These periods of comfort increased in length daily, until, after three weeks, during which time she was by no means a steady visitor at my office, all traces of irritation have disappeared, and the patient is well; the only sequela being a slight pharyngitis,

arising from the congestion of the mucous membrane in that locality, which is subsiding fast.

That this result will remain permanent, I am, of course, unable to say; but that it should have been reached at all, appears to me sufficiently important to warrant its publication.

To the general practitioner, however, this form of treatment would usually prove inaccessible; since, to be a success, it is essential that the proper current be employed, and used by an expert in galvanizing the brain and sympathetic. For, as Anstie says, in his late work on "Neuralgia and its Counterfeits," "the use of the battery current in these regions (the head and neck) is attended with the gravest danger, unless employed with great skill and caution." This, however, need be no serious objection, since there are now, in several of our large cities, electro-therapeutists, who will gladly place their experience and instruments at the service of their professional brethren for any and all forms of scientific researches, and I trust that these suggestions will be followed out until the number of cases so treated and the length of time elapsing be sufficient to predicate some positive statement as to the value of galvanism in this disease.

CONCRETIONS IN THE VESICULA SEMINALIS.—At a recent meeting of the Academy of Medicine of Paris, Dr. Reliquet, a specialist for the urinary organs, read a very interesting paper on spermatic colic in the left vas deferens, caused by concretions in the vesicula seminalis of that side. The subject was a married man, aged 65, of a delicate constitution, pale and emaciated. After describing the symptoms from which the patient suffered, and which began about a year before he applied for relief, in March last, Dr. Reliquet stated that he had the greatest difficulty in diagnosing the case, so much did the symptoms resemble those of stone and enlargement of the prostate gland. In examining the patient for stone, he was seized with a violent, spasmodic pain in the urethra, and in a few minutes he expelled a quantity—about forty in number—of small, whitish bodies, varying in size from a pin's head to a small lentil, which followed a great flow of urine. These bodies presented flat surfaces and obtuse angles, like those of prostatic calculi. They were, however, soft, and broke easily between the fingers. To the naked eye, they seemed to consist of a homogeneous substance, without any enveloping membrane. The liquid which followed was sanguinolent. Dr. Reliquet, never having met with a similar case, was somewhat puzzled as to the nature of these bodies; he therefore submitted them to Mr. Charles Rolin, the celebrated histologist, for examination, who described them as "symplexions" (concretions). After the expulsion of these bodies, the patient recovered rapidly, and he no longer suffers from any pain or inconvenience during micturition, copulation or defecation. Dr. Reliquet remarks that the surgeon is often consulted by patients suffering from severe pain during ejaculation, but that the cause is almost invariably sought in the tissues surrounding the seat of pain; whereas, if the semen be examined in these cases, it will probably be found that the disease is not so uncommon as it is represented to be, and that, at any rate, an examination of this fluid would remove all doubt in the matter.—*Correspondence of the British Medical Journal.*

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. WADSWORTH, M.D.

Epithelium of the Anterior Lens Capsule.—Hosch (*Graefe's Archiv*, xx. 1) finds that the epithelial cells of the lens capsule are not, as stated by previous writers, more or less regularly polygonal, with defined contour. His investigations were made on the lens of man and various animals. Macerating the isolated, anterior capsule for two or three days in iodine serum, the cells appear provided with processes. These are single or forked, vary much in breadth, and project from all sides, or only from certain parts of the cells. The cells themselves are flat, and contain, usually, only one large nucleus. The results obtained by maceration were confirmed by the observation of quite fresh preparations, on which the edges, at least, admitted of accurate examination. Seen in their natural connection, however, the cells did appear as they have been described by others. The processes have much the same degree of development from the middle of the capsule to its periphery; but at the equator, where the nuclei are crowded together, and the cells contain but little protoplasm, and begin to be transformed into lens-fibres, the processes are quite short or entirely wanting. Hosch sees in these epithelial cells an analogue of the serrated cells found in many-layered epithelium. Serrated cells proper, however, he did not discover; the processes rather resembled the "digitations" described by Langerhans as belonging to the epithelial cells of the cornea.

Medullary Nerve Fibres in the Retina.—The presence in the human retina of nerve fibres possessing a medullary sheath has been, in several cases, anatomically demonstrated, on eyes, however, which had not been examined during life; and the ophthalmoscopic appearances considered as due to the presence of such fibres are well known. Only recently has the direct proof been afforded that the ophthalmoscopic picture is owing to medullary fibres. In the second edition of Schweigger's Text-book, 1873, a case is briefly referred to, in which the ophthalmoscopic diagnosis was confirmed, anatomically, by Virchow. Schmidt (*Monatsbl. f. Augenheilk.*, April and May, 1874) gives a second case. Seen during life, the bundles of medullary fibres appeared to begin close to or over the edge of the papilla. The microscope showed that the medullary sheaths were wanting at the lamina cribrosa and deeper parts of the papilla, but reappeared above the level of the choroid. Often, the fibres could be followed till the sheath was gradually and imperceptibly lost.

An Anomaly of Innervation of the Iris.—Schlesinger (*Pester Med. Chir. Presse*, 13, 1874, and *Schmidt's Jahrbücher*, 7, 1874) observed a paresis of the right facial in a soldier, which was said to have existed since childhood in consequence of discharge from the ear. The paresis was complicated with mydriasis of the right pupil, which differed from an ordinary mydriasis, in that the pupil, although evidently larger than that of the left eye, still reacted promptly to different degrees of light, and on strong convergence became of the same size as

the left. In the centre of the right cornea was a macula, insufficient, however, to explain the mydriasis. The eye was emmetropic, and otherwise normal. The author explains the mydriasis as due to action of the dilatator pupillæ through irritation of the sympathetic, and refers to other disturbances of nerve action complicating facial paralysis, which Tryde reported. "Impulses sent along nerves which are unfitted for conduction sometimes pass over to other neighboring nerves." In this patient, the mydriasis became more evident when he endeavored to contract the paralyzed facial muscles. Stellwag, also, has pointed out that variations in the size of the pupil accompany forced action of the facial muscles.

New Operation for Entropion and Trichiasis of the Upper Lid.—Warlomont (*Annales d'Oculistique*, May and June, 1874) rehearses the objections and inconveniences of the more effective operations for entropion, and proposes the following, which has the advantages that it does not require the removal of any portion of the skin, and does not leave the final result dependent upon the chances of cicatricial contraction, the amount of which can never be exactly estimated. The blepharospasm being applied to check bleeding, an incision is made, involving the skin only, parallel to the ciliary border, and 2-3 mm. distant from it. Then a flap, of skin only, is dissected upward so as to lay bare the orbicularis muscle up to the upper edge of the tarsus. The edge of the lid is split by passing a knife, with double edge and curved on the flat, behind the lower lip of the incision previously made along the anterior surface of the tarsus and through the free edge of the lid close behind the ciliæ. A bridge of skin and muscle containing the ciliæ is thus formed, as in the so-called Arit-Jaesche operation. The upper edge of the tarsus is laid bare by removing a narrow strip of the orbicularis, and the upper end of the bridge fastened, by sutures, to the fibrous tissue firmly united to the tarsus, or to the tarsus itself. This last is the important step of the operation, on which its success depends. The flap of skin above is left to itself. If the tarsus is much curved, a piece is removed, as in Streatfeild's operation, before placing the sutures. The sutures should remain three or four days.

Hypertrophy of the Lachrymal Gland.—Savary (*Annales d'Oculistique*, March and April, 1874) describes a case occurring in a man, 59 years of age. The tumor was said to have developed after a blow received three years before, and had gradually pushed the eye forward and downward; it was situated under the outer part of the orbital roof, appeared hard and about the size of a pigeon's egg, and gave rise to continual overflow of tears, and occasional pain. The removal was difficult, as it reached backward to the bottom of the orbit, and its fibrous envelope was attached firmly to the periosteum. There were some cerebral and other symptoms, the first few days after the operation, which disappeared as suppuration was established. The wound healed in four weeks. The exophthalmos was scarcely to be remarked, and the overflow of tears had ceased.

Removal of Metallic Deposits on the Cornea.—Heckel (*Journal de Thérapeutique*, 8, 9, 1874) blames the asserted frequent use by oculists of metallic solutions in cases of ulceration of the cornea, and describes the thickness and depth of the resulting incrustations as dependent on the amount of the original loss of substance. He seems to have ex-

perimented chiefly on animals, and as he mentions only two cases in which he has observed lead deposits in man, his statement that these are of frequent occurrence would seem hardly justified. He states that he has removed lead deposits in the space of a month, by the use of a solution of acetate of soda, gr. iss. to ʒi. ; but the frequency of application of the solvent is not given. Hypothetically, subsulphate of soda should be used for deposits of silver, and weak alcohol for resinous deposits. If the deposit be covered by epithelium, mechanical means are alone of avail.

Optic Neuritis as a Symptom of Intracranial Tumor.—That optic neuritis is of not unfrequent occurrence with intracranial new-formations (what Hughlings Jackson calls "coarse disease") is now generally known. Its diagnostic value as a symptom, and hence the importance of ophthalmoscopic examination whenever there is anything to excite suspicion of the presence of such disease, has often been insisted on. Various reasons have, however, conspired to prevent this symptom receiving, generally, the attention which it deserves:—the fact that the statements formerly made that a particular form of neuritis was pathognomonic of cerebral tumor have been shown, by an increased number of observations, to be incorrect; that neuritis, also, occurs with other forms of intracranial disease than new-formations; the opinion expressed by some authors that neuritis is wanting in a large proportion of cases of intracranial growths; the still widely prevalent belief that neuritis must, except in very rare instances, give rise to such disturbance of vision as would readily be noticed, both by patient and physician.

Annuske (*Graefe's Archiv*, xix. 3) has contributed a valuable paper on this subject. The observation, within a comparatively short time, of a pretty large number of cases of proven or supposed intracranial tumors led him to an investigation and comparison of published cases, and through these, together with his own observations, he came to the belief that the diagnostic value of optic neuritis had been, hitherto, universally too lightly esteemed. Of 271 cases of intracranial tumor, verified by autopsy, which he collected, only in 43 was there note of ophthalmoscopic examination, and in one of those the result of the examination was not given. Of the remaining 42 cases, white atrophy was found in 8; in 1, neuritis of one side only; in the others, double neuritis. To these are to be added five cases of his own with autopsy, in all of which there was double neuritis, or the commencing stages of atrophy from neuritis.

Atrophy of the disc is, in all these cases, to be regarded as the result of, and therefore as having the same significance as, neuritis. In most of the cases where atrophy was noted, the traces of a previous neuritis were also observed; the absence of such traces in one or two instances is not sufficient to prove that neuritis had not existed. Where the appearance of simple atrophy alone was found, it was at a comparatively late stage of the disease, and there is ample evidence to show that an atrophy following neuritis may, in time, differ in nothing, so far as ophthalmoscopic appearance is concerned, from a simple, primary atrophy. There is, of course, the possibility that simple atrophy, from intracranial growth, may occur, but it has never been demonstrated.

The amount of disturbance of vision found must depend, in some

degree, upon the stage of the process at which the test of the function is made. Frequent instances have been reported, in which there was little defect of vision, and of 19 cases of neuritis observed by Annuske (not all, indeed, from tumor), in six was there vision between $\frac{1}{2}$ and 1.

Annuske has been unable to find evidence in support of the statements which have been made that intracranial tumors often do not give rise to optic neuritis, and believes such statements to be the result of insufficient or imperfect observation. He regards optic neuritis as almost without exception a constant symptom, and, in general, a comparatively early one. Its occurrence with other intracranial affections cannot be considered to greatly invalidate its importance as a symptom of tumor. On the one hand, the other intracranial affections which are likely to give rise to neuritis can (exceptional cases aside) only temporarily cause error in diagnosis, since their other symptoms characterize them as acute diseases; while tumors, though often exciting acute symptoms for a time, follow always in general a chronic course. On the other hand, such intracranial affections as are likely to be confounded with tumors from their general symptoms and course (chronic encephalitis, softening and cerebral abscess), never excite optic neuritis.

No attempt is made to decide the manner of connection between the new-formation and the neuritis; neuritis has been observed in connection with tumor situated in almost every part of the intracranial cavity; with tumor of very small size, and in cases in which the rate of growth of the tumor varied greatly. It is regarded, however, as worthy of farther attention that a collection of fluid in the ventricles was recorded in 15 of the 43 collected cases, and was found in the 5 cases of his own, in which there was an autopsy.

Reich (*Monatsbl. f. Augenheilk.*, June and July, 1874) gives farther statistics of intracranial growths, which confirm, in the main, those of Annuske, though they make the proportion of cases in which neuritis is wanting somewhat greater. Of 86 cases, not included in Annuske's tables, there was ophthalmoscopic examination in 45. In 41 of these, there was double optic neuritis or atrophie ex neuritide; in 1, neuritis of one side; in 3, no change in the disc.

Taking all the cases given by both writers (92), there was—

In 95·65 per cent., optic neuritis or atrophie ex neuritide.

In 93·5 per cent., double.

In 2·15 per cent., of one side.

In 4·35 per cent., no ophthalmoscopic change.

POISONING BY BROMO-CHLORALUM.—DR. R. C. Hewett reports, in the *American Medical Weekly*, Oct. 10, 1874, a case of poisoning by the above agent, which is put up in bottles labelled "non-poisonous." The patient was a healthy negro girl, 16 years of age, who said "she took three swallows of bromo-chloralum, and nothing else," and remained in a profound stupor for five hours, the medical attendants, meanwhile, being unremitting in their attempts to restore her to consciousness. The symptoms were those of profound stupor, the pulse, respiration and pupils being normal. A peculiar cataleptic condition was present, the body and limbs retaining any position in which they were placed. Her physicians at first suspected malingering, but satisfied themselves that such was not the case. A slight sore throat, and a languid, stupid expression were the only symptoms that remained the day following the poisoning.

Bibliographical Notices.

Therapeutics and Materia Medica. A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By ALFRED STILLE, M.D., &c. &c. Fourth Edition, thoroughly revised and enlarged. Two Volumes. Philadelphia: Henry C. Lea. 1874.

A NEW edition of so well-known a work as that of Dr. Stillé cannot fail to command attention, even among the present multitude of text-books and monographs upon the subject, and its old reputation is not likely to be eclipsed thereby, for although others are more modern in their methods and in many of their facts even than this edition, yet Dr. Stillé has avowedly written from a somewhat different point of view, and, consequently, if his work is directly compared with those of Nothnagel and Wood for instance, a question of methods and principles as well as of details at once arises.

In the preface to the first edition (1860), Dr. Stillé speaks of the "action of medicines upon the sound organism of man and the lower animals" "being somewhat more copiously illustrated than is usual in treatises on materia medica," while at the same time asserting that clinical observation is the final test to which we must appeal.

The results of experiments upon the action of drugs made since that edition was published, or which were hardly accessible at that time, have been so striking and so suggestive that the enthusiastic have supposed the time near at hand when therapeutic uses might be reasoned out from physiological data. Our author, however, still considers them "fragments of scientific knowledge which may one day serve to bridge the chasm between theory and practice."

The literature of the last five years shows that physiological experiments can furnish suggestions and explanations only, and that clinical observation may surpass them in the accuracy and reliability of its facts.

The effects of chloral, for instance, are better known to the practitioner than its *modus operandi* is to the physiologist, since the theory which led to its transformation from a chemical curiosity to a useful drug is very far from having been proved true, and its discovery may, after all the jubilation over "therapeutics beginning in the retort," turn out to be made, as that of the planet Neptune is said to have been, by mistake.

The fact that quinia cures intermittent may possibly be explained by recent experiments of Binz and his pupils, but its existence is much more firmly established than theories, and it will be entirely unaffected by the fate of any theory of its action.

Although we may regret that Dr. Stillé's book is not now comparatively so complete upon the physiological side as some of its rivals, yet, looking at it from the point of view indicated above, we can hardly admit that it has a rival in the multitude of its citations and the fulness of its research into clinical histories, and we must assign it a place in the physician's library, not, indeed, as fully representing the present state of knowledge in pharmacodynamics, but as by far the most complete treatise upon the clinical and practical side of the question.

The present edition contains articles on bromide of ammonium, lithium, &c., nitrite of amyl, chloral and other drugs not mentioned in the last edition. The nomenclature conforms to the last edition of the Pharmacopœia.

Transactions of the Pathological Society of Philadelphia. Volume Fourth. Edited by JAMES TYSON, M.D. Philadelphia: printed for the Society by J. B. Lippincott & Co. 1874. Pp. 250.

THOSE who are familiar with the preceding volumes of reports of this Society will be surprised to see the admirably printed and illustrated volume

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now presented. There can be no question that in externals a marked advance has been made.

The retiring President, however, is obliged to call attention to the somewhat diminished interest in furnishing material for future publications, and states, very clearly, what has always been observed in similar societies, that a mere presentation of specimens is not sufficient to keep up a real interest in the objects of the Society. The remedies he suggests are quite to the point, and, if acted upon, will undoubtedly accomplish the desired result.

Among the various specimens was one of hydatids of the liver, with a similar cyst in the pelvis. It would have been very interesting had a discussion been reported concerning the method of origin of the latter. The inference from the account would naturally be that, as originating from the tissues of the pelvis, it probably developed beneath the peritoneum. Notwithstanding the distinct statement that the sac was found to be covered by peritoneum, we hardly think the possibility of its having become separated from the liver and its subsequent gravitation into the pelvis have been sufficiently entered into.

The elaborate report of Dr. William Pepper, with reference to the treatment of scirrhus of the pylorus, is worthy of notice as evincing a desire to combine the clinical aspects of the case with the pathological lesions; a matter of no little importance when we realize how many members of such a society are those who possess merely a general, particularly a practical, interest in the proceedings.

Among the curiosities is a specimen of cystic disease of the testis. It is unfortunate that this specimen was not referred to the committee on morbid growths, particularly as the possibility of the presence of a teratoid tumor is so directly suggested, the age of the patient, the gross appearances and the pathology of such alterations of the testis being considered.

It might seem captious to demand that every case should be fully reported, and yet one is often obliged to regret, with the President, that the "indisposition to discussion has been gradually increasing, until now it is a positive evil."

Much of the value of such publications consists in the use of their material by those who are at a distance and who are compelled to be exceedingly slow in accepting mere statements. Doubts which arise cannot be removed, and aid which might be valuable has to be rejected through fear that it may prove unsuitable.

In calling attention to some of the faults, it would be unjust not to refer to the many merits of this book. Its publication shows a most commendable interest in the subject, and in so large a medical centre as Philadelphia we are not disappointed in finding much that is rare and interesting. The Editor has done his part so well in the arrangement of material that it would be unfair to call upon him for more. But Dr. Tyson has been one of the most frequent contributors, doubtless due to his well-known interest in pathological anatomy.

There is one feature in the constitution of the Society which is an admirable one and may well be adopted by others. We learn that a necessary sum of money is granted to those members who are pursuing pathological investigations and who desire such assistance, the only conditions being that the results of such research should be contributed to the Society.

Proceedings of the Maine Medical Association, 1874. Twenty-second annual meeting.

If we accept the evidence offered in the published transactions before us, the Maine Medical Association gathers strength with its increasing years and has fully passed the stage of adolescence; for we find here abundant proof of a vigor and an enthusiastic purpose which encourage great expectations for the future of the medical profession in Maine, and show its present standard to be very high. We have space for the mention of only a few of the interesting papers included in the proceedings.

The inaugural address, by Dr. Page, the president, is a brief but suggestive exposition of the practical duties of the profession. A timely allusion is made to the increasingly important relations of sanitary science, and the necessity for the institution of a State Board of Health is insisted on.

The annual address, by Dr. R. K. Jones, had for its subject the Limitations of Medication. After a review of the various systems of medical practice recorded in history, the orator dwelt at length on the more rational methods of the present day, the avoidance of active and needless medication, reliance on natural processes and the economizing of the vital powers. The address is excellent in tone and bears the impress of mature thought.

Dr. Weeks reports on the subject of Vaccination. The familiar story of the ravages of smallpox before Jenner's day, and of the wonderful benefits bestowed by the discovery of vaccination is rehearsed. Observations on the utility of compulsory vaccination are followed by an allusion to the subject of impure vaccination, and the transmission of other diseases than vaccinia, the author asserting that inexcusable carelessness on the part of the operator must be an antecedent condition of infection. A frequent return to the primary source of the lymph, the pure cow-pox, is advocated, and the necessity for repeated re-vaccination is urged.

Dr. Hamlin treats of the transmissibility of consumption, and discusses the sanitary measures to be taken to modify the course and stay the progress of the disease. Incidentally, the writer alludes to the artificial feeding of children. His formula for bottle-milk does not make it necessary to dilute or to warm the cow's milk, "healthy and selected cow's milk, with the addition of a little cooked and strained oatmeal, and a spoonful of lime-water, being a safer diet for infantile life than the milk of more than one-half of the mothers of the present day."

Dr. G. W. Foster, in a paper on the Treatment of Hyperpyrexia, favors the application of cold baths and the use of alcohol and quinine, the latter in large doses.

Dr. Sanger reviews Esmarch's bloodless method in surgery with approval.

Dr. T. A. Foster presents a searching review of the much-reviewed "Sex in Education." The writer finds much to criticize in the physiology of the book, and not a little to deprecate in the teaching and tendencies of Dr. Clarke's educational philosophy.

Dr. Libby reports a case of extensive Nævus of the Face removed by the local application of carbolic acid.

As a whole, these transactions are very creditable to the association under whose auspices they are issued.

Croup in its Relations to Tracheotomy. By J. SOLIS COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest, in Jefferson Medical College. Philadelphia: Lindsay & Blakiston. 1874. (Reprinted from the Transactions of the Medical Society of the State of Pennsylvania.)

THOUGH containing nothing original, this essay is valuable from the carefully prepared statistics of the operation in different countries, in different epochs, and performed on patients of different ages. The author deserves great credit for the industry and method to which the tables bear witness. We cannot but think that the tables of American practice are the most imperfect, but we are not inclined to lay the blame on the compiler as much as on the operators who have not reported their cases. The table records only twenty-four cases of the operation in this city, and, knowing as we do that this is but a small proportion of those performed, we cannot but regret that our surgeons have not seen fit to give the profession at large the benefit of their experience. The author's conclusions are as follows:—

"1. That there are no insuperable contra-indications to tracheotomy in croup.

"2. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation; but that it should be used with great caution.

"3. That a careful dissection should be made down to the windpipe, before incising it, whenever there is at all time to do so.

"4. That the incision should be made into the trachea as near the cricoid cartilage as possible, to avoid excessive hæmorrhage and subsequent accidents that might occasion emphysema.

"5. That a dilator should be used, or a piece of the trachea excised, whenever any difficulty is encountered in introducing the tube.

"6. That the tube should be dispensed with as soon as possible; or altogether, if the case will admit of it.

"7. That assiduous attention should be bestowed upon the after-treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four hours immediately following the operation."

We may be permitted to remark that, in the paragraph 2, the case is stated very mildly; unless in exceptional cases, ether is not only admissible but advisable. The method of operating is discussed at some length, but we see no allusion to a very important point, namely, that, after an adequate incision through the skin, the edge of the knife should, except in cases requiring great despatch, hardly be used at all, but the trachea laid bare by careful picking with blunt instruments as with a director. This practice will leave less room for the discussion as to how far hæmorrhage should have ceased before the trachea is opened. Nothing is said of a source of danger, which is, perhaps, not enough considered in this country, though absurdly over-rated in Germany, namely, the entrance of air into the veins. We regret, also, that the author does not give any conclusion as to the time for operating, which is, really, the most important aspect of the whole question. In spite of these short-comings, we can recommend the work as containing a large amount of information.

Essentials of the Principles and Practice of Medicine. A Handbook for Students and Practitioners. By HENRY HARTSHORNE, A.M., M.D. Fourth Edition. Philadelphia: Henry C. Lea. 1874. Pp. 548.

WE cannot speak favorably of a book of this kind, though it is, no doubt, occasionally convenient to the practitioner and only too acceptable to the student, whom it leads by short cuts to practical results, which, to be really valuable, should be reached by a course of hard reading. The book is carefully written, and though we could find something to criticize we could find more to praise, were it not that we consider its very nature objectionable.

BOOKS AND PAMPHLETS RECEIVED.

On Sects in Medicine. By John C. Peters, M.D. New York. 1874. Pp. 22.

Therapeutics and Materia Medica. By Alfred Stillé, M.D. Fourth edition. In two volumes. Philadelphia. Henry C. Lea. 1874.

Croup in its Relations to Tracheotomy. By J. Solis Cohen, M.D. Philadelphia: Lindsay & Blakiston. 1874. Pp. 78. (For sale, in Boston, by James Campbell.)

The Medical Register for the State of Massachusetts. By Francis H. Brown, M.D. Boston: W. P. Lunt. 1875.

HYDROPHOBIA.—A short time since, a young man named Henry Sivyer put up at the Rock, Cliffe, Lewes. He slept at an outhouse which had hitherto been occupied by a lurcher dog. Towards morning the dog broke loose, and proceeded to dispute possession of his old quarters with Sivyer. The dog eventually bit the man severely in the hand. The next day he bit another man, two dogs and a cat. Sivyer has lately died, after four days' illness. During the latter part of his illness, he refused all liquids. The other man who was bitten has as yet felt no bad effects.—*British Medical Journal*.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 5, 1874.

THIS is the season of political excitement. When this is read, the State elections will be over; but, as we write, they are still in the future. The physician is precluded from taking any active part in politics. His modest career of usefulness is not to be interrupted by the excitement of the struggle, the exultation of success or the mortification of defeat. He stands aside and watches the game. As a citizen, he votes according to his views; and, with that, he too often thinks his responsibility ends.

As the representative organs of the profession, medical journals take no part in the violent debates of the times. We have nothing to say of the claims and merits of rival parties, so long as the issues are of a merely political character; but when, as is often the case, sanitary measures of great importance depend on the result of an election, it becomes the duty of the profession to express its opinion, and to use its influence on the side of health. There are many points concerning which the opinion of the physician is of greater value than that of his neighbor, the merchant or the lawyer; and he should not hesitate to express it freely, in support of the right. Often, of course, there may be an honest difference of opinion; but, in many cases, there is no room for doubt, and, in such, the united votes of the profession would serve as a healthy check to whichever party might be in power.

In the present election, the only question of a sanitary nature is the old and vexed one of prohibition. We have said, long ago, that we thought the profession largely responsible for the present deplorable and demoralizing state of affairs, but we recognize the right of others to take a different view of the matter. We are glad to believe that the farce is nearly played out; public contempt has been growing more general and more outspoken; people are beginning to appreciate that the opinion of a candidate on a question of this nature is more important than the name of his party; and we are confident that, if this year does not rectify the abuse, another will.

The duty of the physician is usually clearest and his influence greatest in the sanitary affairs of his own city or town. He should, as far as his opportunities permit, instruct himself in the laws of water supply, drainage, ventilation, &c., and should watch to see that those in office do their duty to the community in these matters. The influence of the profession is so rarely exerted that we ourselves, as well as

others, are apt to forget its power; but it is a reality none the less. It had a large share in creating the public indignation which, during the ravages of the smallpox, two years ago, forced the reluctant city government to establish a Board of Health; and, should it ever be necessary, it will undoubtedly assert itself again. Now, to have power is to be responsible not only that it is used justly, but, also, that it is not neglected, as we fear is too much the case. It is far from our intention to imply that we would wish physicians to become adepts in the dubious arts by which the inner wheels of public affairs are moved; we should shudder to see them ward politicians, but we believe that there are many ways alike open and effectual by which they can and should exert an influence in many questions of public good.

ATROPINE AS AN ANTIDOTE TO MORPHIA.—By S. WORDSWORTH POOLE, M.D., Sidecup. Many experiments on the lower animals have been performed by Dr. Reese, of Philadelphia, and others, to prove the antagonism of these two narcotics; but they cannot decide that in man the one drug is an antidote of the other; that is, according to the derivation *ἀντι-διδωμι* the one ought to be given to counteract the other, and for this reason: animals exhibit an extraordinary tolerance of these poisons—one dog swallowed 8 grs. of atropine one day, and 14 grs. the next, and yet completely recovered without any means being taken to save it.

It is plain that observations to be of value to man must be made on man; and as there are at present but few, I hope the following may be of use in determining a question of such grave importance.

The patient was a lady of 28, whose temperament, by nature keen and nervous, had been rendered doubly so by a series of trials, both mental and physical, enough to shake a constitution of iron. When quite young, she had been affected with brain fever, and the striking feature of that disease, delirium, always showed a tendency to return after any excitement, especially after parturition, and on two occasions lasted for about three days. On the other hand, slight fatigue was often followed by syncope, and she would lie in a trance, scarcely breathing, until stimulants were freely administered.

On the 7th of July, I had to perform a serious operation on one of the members of her house. Her keenest feelings were all astir, and there was a deep flush on the cheek I never saw before. For two weeks, there had been headache and giddiness, and she had fallen down stairs from vertigo.

Suddenly, whilst at tea, an attack of hysteria came on—sobbing, raving, and ejaculations of mental agony, and attempts to tear the hair and face. Then followed two symptoms never present in any of her former attacks—clonic spasms of the oral muscles, and slight opisthotonos.

Stimulants were given, but to no purpose. It was difficult to keep her from self-injury; and in order rapidly to control and relieve her, I injected one grain of hydrochlorate of morphia at 7 P.M. She was conscious of this, and became for a while more violent and vociferous, but gradually grew manageable, though talking incessantly, and about 8.30 walked with help up stairs, and was laid in bed. Though morphia had never before been injected, the liquor opii had been thus employed in doses of 60 drops as an anodyne, with moderate effect, several times, and it had not produced a symptom which was now very marked, extreme itching about the nose.

At 9, the breathing became very slow, so that she had to be held sitting, as it threatened to stop altogether when lying down. She grew quite still until roused, when the talking went on. As she complained grievously of

being kept up, and as the pulse went beating steadily on, I allowed her to lie down, keeping my ear over the heart, to hear if the respiration would return; but the moments sped on, and no breath was drawn, and the trial was abandoned. Brandy had been very freely given; now ammonia was tried by the nostrils; then Sylvester's method; then forcible movements; for the respirations stopped, the face became deadly pale, and the pupils were mere pin-points; the voice was silent, and every voluntary movement gone.

About 11, P.M., the horrible feeling was forced upon me that in a few minutes the narcosis would prove fatal.

One resource was left, the injection of atropine, and this had not been tried, as there were not present in my mind many instances of its success, and I had frequently found this alkaloid produce much delirium.

The *American Medical Times* records a case in 1871, where a man swallowed and absorbed an ounce of laudanum, equivalent to 24 grains of opium, became deeply comatose, with four respirations per minute, and recovered after having two-fifths of a grain of atropine injected in the course of eighteen hours, one-thirtieth at a time. In my case, though the dose of the opiate was much less, the coma came on more rapidly, and the respirations were not one a minute.

The patient being propped up in an arm-chair, I injected one-sixth of a grain of sulphate of atropia, and sat down watching with intense interest for a change. In ten minutes, the pupils were dilated well-nigh to the full, and the breathing became regular, though very slow; but other changes there were none.

Soon after, Mr. B. P. Matthews, of Chiselhurst, arrived. On taking into account the giddiness, the suffusion of face, and the convulsions, his opinion was that the case was one of idiopathic congestion of the brain, with narcosis superadded. Cold water was applied to the head, and hot water to the feet; and we kept putting fluids into the mouth in order to provoke action of the muscles of deglutition, and thus keep up some vitality, for there was complete acinesia as well as anæsthesia. Altogether, her appearance was appalling, and too painful to be minutely described. About 3, A.M., vomiting was induced several times, and a slight moan indicated the vestige of sensation; but the breathing grew stertorous, and the pulse, which had all through beat on manfully, began to flicker, and all hope was abandoned.

I have now to record the most striking instance of successful treatment I have ever witnessed. At 6, A.M., she was laid down, and the large, India-rubber bottle, hitherto at the feet, was filled with boiling water and applied to the præcordia. The effect was marvellous, well-nigh miraculous. The patient raised herself up, and, with both hands, tried to push the bottle away, uttering the word *please* in accents indistinct, yet recognizable. The cue to the recovery was found, and it is needless to describe the after-stages.

Anorexia and prostration lasted for several weeks.

As illustrating the antagonism of the drug, this case presents the serious defect that it is impossible to estimate how much of the cerebral congestion was toxic and how much idiopathic. But this much is certain: the subject was in *articulo mortis* from failure of respiration, with contracted pupils, and immediately on the atropine being circulated through the system, these two symptoms disappeared. As these are both acknowledged consequences of opium narcosis, it is plain that the atropine saved my patient from her more threatening foe.

Can this agent counteract the coma or stupor produced by alcohol?

As hypodermic injections are destined to play so great a part in medicine, it may be even in toxicology, one can hardly over-state the need for determining the question of antidotes.

How many of us have not wondered that the serpent, the most venomous of all created things, the very incarnation of evil, should have been worshipped throughout all antiquity as "the good demon," and should have been even to the present day accepted as the emblem of the healing art? Why ophiolatry should have been so general, I do not comprehend, in spite

of the learning bestowed on the subject, for it existed long before the brazen serpent cured the plague-struck Israelites; but the special assignment of this animal to the god of medicine seems to me a recognition of the fact that by our art the poisonous principles found in nature were converted into agents for the cure of disease (the idea that it was on account of vipers being often employed in pharmacy is too trivial to be entertained); and the acknowledgment of this great truth seems almost prophetic when we consider how potent and subtle are the remedies now employed, and above all how an instrument, closely resembling, in its mode of action, the tooth of the envenomed beast, forms part of the armamentarium of every son of *Æsculapius*.—*Practitioner*.

ANOMALOUS SYMPTOMS AS THE RESULT OF BLOOD-POISONING.—Catherine R—, *æt.* 61, a cachectic-looking, jaundiced, and much-neglected old woman, was admitted into the Whitworth Hospital on August 13, 1874, under the care of Dr. Lyons, with far advanced, malignant hepatic disease, the liver being studded with tubercles, which formed an enormous tumor in the abdomen. After some amelioration of her symptoms, she gradually sank, and, obstinate diarrhœa of a very fetid nature having set in, died on Friday, September 18th, at 1 o'clock, P.M. During the morning of that day, she was continually vomiting some very offensive matter, which was described as being somewhat like the contents of an abscess, but of a dark brown color. At the autopsy, the liver presented a typical example of Farre's tubercle. It had no abnormal communication with the intestines or stomach. The renal organs were in a granular, contracted condition. The other abdominal viscera appeared healthy.

B. P—, *æt.* 23, and R. P—, *æt.* 22, nurse and wardmaid respectively, had been attending this patient during the morning of her decease. They felt a little sick at first, from the odor proceeding from the vomited matter, but after breakfast were quite well again. Ten minutes after her death, they proceeded to arrange the body for transmission to the dead room, when an intestinal discharge occurred, of an extremely fetid character, and which was characterized by all present as "most abominable." In about eight minutes after, the nurse was attacked with a dry retching, and a sensation as if going to swoon. She managed to get into her room, adjoining the ward, where she vomited, and then became quite unconscious, and had no recollection of anything that occurred subsequently until about 4 o'clock, P.M.

When Mr. Farrell saw her, she was sitting up, supported by two women, screaming and throwing her arms wildly about. Both pupils were widely dilated, and her eyes very much congested. The pulse was very rapid and irregular. She cried out that her stomach was very "sore" and "sick," and made frequent ineffectual attempts at vomiting. There was no tenderness on pressure over the epigastrium. Considerable spasms of the muscles of deglutition and of respiration existed, resembling very much those of hydrophobia, and continued, with occasional intermissions, for about two hours. In about a quarter of an hour, she commenced to cry, calling for her mother, and from an apparent conscious state she would lapse into a state of stupor, her eyes firmly fixed, and insensible to light. Respiration and pulse very slow. Acting on the supposition that she might have taken some tincture of aconite, an emetic was administered, followed by a turpentine enema. Considerable dysphagia was noticed. She swallowed with evident pain and difficulty, and in a very peculiar, gulping manner. She continued in a semi-unconscious state, now and then jumping up with an expression of great mental terror and agitation on her countenance, or rolling to and fro in the bed, as if in pain, until 4 o'clock, when she was seen by Dr. McDowel, whom she recognized. She said she did not know what had happened to her, and that she had lost the use of her limbs. Full motor power and sensibility, however, existed. Ice-bags were ordered to be applied to the nape of the neck and upper spinal region, and fifteen grains of hydrate of chloral, to be given immediately.

Soon after the application of the ice, she regained complete consciousness,

and had no subsequent relapse. The chloral draught was not retained more than a couple of minutes, and a second was given in an hour with a similar result. In the evening, she complained of a feeling of oppression, and a sensation "as if something was in her throat." She had a violent, frontal headache and pain in her back, especially in the lumbar region. She was able to take some tea later on, but still remained in a very weak, depressed state.

R. P.—, wardmaid, æt. 22, was attacked ten minutes after the nurse got sick. She vomited while at the dead woman's bedside, and hastened to her room, where she fell down unconscious. She seemed at that time in a stupid state; her head drooped, whilst occasionally she rolled it from side to side in a wild manner. Her eyes were firmly closed and pupils dilated. When removed to bed, she continued in a state of stupor, from which she awoke occasionally, and tossed herself about violently, without speaking or uttering any sound. Laryngeal and pharyngeal spasms existed, similar to those which were observed in the nurse, and violent, choreic, convulsive movements supervened, and lasted for nearly two hours.

When Dr. McDowel saw her, she was still quite unconscious, and the body was violently convulsed. Ice-bags were applied to the spine, and in about half an hour consciousness began to return. She then complained of a sense of oppression and suffocation, "as if she was under water," and being extremely cold and shivering, the ice was removed. An enema, containing twenty grains of hydrate of chloral, was then administered. She passed the rest of the evening quietly, but complained of severe headache and pain in her back.

Saturday.—Both patients slept well, and had no return of spasms. Headache and pain in back not much better. Feel very weak.

Sunday.—Pains better. Got up for a short time, but R. P.— had to return to bed, complaining of great weakness.

Monday.—Better, but still pain in the back in both cases.

Thursday.—Both feel unfit for work, and are going away on leave. Pain in the lumbo-dorsal region still exists. Complete recovery ensued in a few weeks.

REMARKS.—Dr. McDowel was of opinion that in the case of both women the medulla oblongata was under the toxic influence of the noxious gas, which they had inhaled from the dead body, associated, perhaps, with hysteria in the wardmaid; such examples of poisoning, he believed, were extremely rare. It may be added that both women were strong, active, and previously healthy, with no appearance of anemia or chlorosis. They had been in the Hospital about four years, and were quite habituated to the unpleasant sights and smells so often associated with dissolution, and they stated that they could not account for what had happened them on this occasion. The remarkable spasms of the muscles of respiration and deglutition—the mental terror and agitation that existed, especially in the case of the nurse—the dilated pupils—their not having taken any food or drink since 8, A.M., and then only their usual meal—and, notably, the coincidence of their both being attacked almost simultaneously, seems conclusively to indicate that the symptoms they labored under were the result of the absorption of a poisonous gas which emanated from the body of the deceased.—*Irish Hosp. Gaz.*

REPORT ON THE CHOLERA IN MUNICH.—During the epidemic of cholera in Munich, in 1873-4, the police authorities collected an abundant supply of statistical material, in order to obtain starting facts for researches in the spread of the disease, and the means of resisting it. The following subjects are comprised in the materials referred to: 1. An enumeration of all streets and places in which no cases of cholera occurred, and a statement of the condition of their sewerage; 2. A sufficiently accurate statement of the daily number of cases and deaths; 3. A summary of the cases of disease and death, arranged according to the fourteen police districts of the city; together with a statement whether the cases were observed in the summer epidemic (June 26 to November 16, 1873), or in the winter epidemic (November 27, 1873, to April 28, 1874); 4. An enumeration of the cases of disease and

death, arranged according to houses and streets, with special notice of the condition of the population and of the sewerage, and of the time at which the disease occurred; 5. An alphabetical index of all the streets and places where cholera occurred, with various details. Among the facts ascertained is the interesting one that of the 400 streets of Munich, 122 had not a single case of cholera; and that of these 122, 93 are without drainage. The total number of cases was 3,040, of which 1,466 were fatal.—*British Medical Journal*.

Correspondence.

HARD-BOILED EGGS AND OTHER MATTERS.

"It will surely kill you if you eat that hard-boiled egg. Dr. — says so." We heard a woman say this to her daughter at a hotel table the other day. We made no audible comment, but could not help thinking quietly how many times we run the risk of life in the same way. And when, at the supper table, we saw this parent eating sponge cake, which was unexceptionable, we tried to tremble for her rashness, and wondered if baking the egg made it more digestible than boiling. And then we wondered if Dr. — ever said so. And then we remembered how many times we had heard that Dr. This and Dr. That had said one thing and another thing, which we knew they had never said. And we remembered the story of the three crows that somebody vomited. And, on the whole, we thought that it is not best to trust much to what somebody says "Dr. — said."

But, in the first place, about hard-boiled eggs. We have seen dyspeptics who suffered untold torments with almost every kind of food, and torments of which they did tell after some medicines given for relief. No liquid could be taken without suffering. Bread became a burning acid. Meat and milk were solid and liquid fires. We have seen these same sufferers trying to avoid food and drink, and even going to the enema syringe for sustenance. And we have seen their torments pass away, and their hunger relieved by living upon the white of eggs which had been boiled in bubbling water for thirty minutes. At the end of a week, we have given the hard yolk of the egg with the white, and upon this diet alone, without fluid of any kind, we have seen them begin to gain flesh and strength, and refreshing sleep. After weeks of this treatment, they have been able, with care, to begin upon other food.

"And what medicine?" says Dr. Doser. Why, no medicine. We advised them to throw physic to the dogs; to avoid it as poison; that medicine had been partly to blame for the dyspepsia. But Dr. This and That thinks we injure the profession by talking against medicine. We don't mean to talk against medicine. It is a very useful thing; sometimes useful when we give it, and sometimes when we don't. But we don't mean to use it, when it is not needed, and especially when something else will do our work better. Physicians need not fear that there will not be work enough for them, and if without medicating, why, so much the better.

Thus much for hard-boiled eggs. Not half so bad as half-boiled ones, and ten times as easy to digest as raw eggs, even in egg-nog.

In the second place, about what "Dr. — said." We wish to caution the reader not to believe a tithe of the statements quoted in that way. A set of busy-bodies like to tell what he said. They misunderstand one half and invent the other. You know that there are fools in every profession, but you know, if you stop to think for a moment, that Dr. — is not one of them. And then there is an occasional old fool, generally a female fool, who talks for a living, who has had everything that mortal ever had happen to her, except the risks of becoming a parent; who always had every disease more severely than any one whom Dr. — ever knew to have it, and recover; and who had every sickness more times than any one else. This is the person to whom you can generally trace Dr. —'s opinion.

Medical Miscellany.

AN inebriate hospital is to be established in London.

DR. T. LAUDER BRUNTON will succeed Dr. Anstie as editor of the *London Practitioner*.

WE understand that Dr. E. H. Clarke is about to retire from the fatigues of general practice and to devote himself solely to office and consultation practice.

THE American Public Health Association will meet in Philadelphia Tuesday, Nov. 10, 1874. The session will continue three days, and many interesting papers are promised.

DR. BURGGRAEVE, Honorary Professor of the University of Ghent, has formed the idea of celebrating the centennial of the discovery of vaccination by publishing a folio volume, on vellum, illustrated with the portrait of Jenner.—*The Medical Press*.

WE think Dr. Macnamara is right in suspecting that there are many surgeons who have performed every brilliant feat in the wide range of surgery, but who have yet shrunk from doing the simple operation of venesection. In a very wide experience during the last fifteen years in the hospitals of this city, we have known of but three cases of bleeding,—two having been under our own care.—*Phil. Med. Times*.

LEPROSY IN CANADA.—Leprosy is said to prevail to a considerable extent in the little village of Tracadie, at the mouth of Miramachi river, Canada. The inhabitants of the village, who are of French descent, have established a hospital for the worst afflicted of the citizens. The disease is understood to have been brought to Tracadie by a French vessel, which was wrecked off the coast some eighty or ninety years ago, and on board of which was a quantity of clothing from Asiatic ports.—*Canada Med. and Surg. Journal*.

ERGOTIN INJECTIONS IN PROLAPSUS ANI.—Von Langenbeck, of Berlin, announces that he has lately been treating prolapsus ani "with astonishing success" by hypodermic injections of a solution of ergotin (five to fifteen parts to one hundred of distilled water). He replaces the bowel, and inserting the point of the syringe about three centimetres in depth in the cellular tissue, throws in from one to two grains of ergotin. This should be repeated every three or four days, for three or four weeks, any hard faecal masses in the bowels being first removed by simple injection.—*Medical Press*.

EMPLOYMENT OF WOMEN IN FACTORIES.—At the recent meeting of the German Sanitary Congress, Dr. Hirt, of Berlin, brought forward some very instructive facts in reporting on "the employment of women in factories," referring to the injurious influence of certain branches of industry, especially those in which mercury, lead, arsenic and phosphorus were used, on pregnant women. In these cases, they were liable to produce abortion, and he held that women ought to be excluded from such labors during gestation.—*The British Medical Journal*.

HORSE-HAIR SUTURES.—Dr. Fayer says, in a recent work, "Well selected white hair out of a horse's tail is, in many respects, better than any suture hitherto devised. . . . That from the tail of a white or gray horse is the best. I hardly know why it should be so, but I find the white is better than the black hair. . . . The matter may appear a trifle, but it is, nevertheless, an important trifle, for if one can avoid the alleged inconvenience, and even danger, from suppuration, from the hemp and silk ligature, or the disadvantages of the wire, the subject is sufficiently interesting to be worthy of consideration.—*Canada Med. and Surg. Journal*.

BEFORE the delivery of the inaugural address at St. Thomas's Hospital, on Thursday last, Sir Francis Hicks, the treasurer, said that, at the annual distribution of prizes, it was customary to reward such students as displayed most proficiency in surgery and anatomy with a prize, in the shape of a valuable gold medal. He was glad to announce that an accumulation of money had arisen from funds placed in their hands some years back, and arrangements were now pending for the founding of a gold medal, to be awarded on similar conditions as the other, to the most proficient student in medicine.—*The Medical Press and Circular*.

ADIPOCERE.—During the last few days, the profession in London has had ample illustration of the process of conversion of muscle into that spermaceti-like substance known as adipocere, in the body of a woman which had been dredged from the Thames. After being imbedded in the mud for, probably, two or three years, upon rapping the body, it was hard and perfectly resonant, and the whole of the internal organs were converted into a solid mass, which, like the rest of the body, when cut into, had the consistence and appearance of hard, discolored wax. One leg was absent, which Dr. Worboys was of opinion still remained imbedded, the weight of mud having separated the parts when pulled up by the dredger. The head was resting upon the left hand, and the hypothesis is that the woman had laid down on the shore of the river at low water to sleep, or in a drunken state, and become suffocated.—*The Medical Press*.

BISMUTH AS AN EXTERNAL APPLICATION IN SKIN DISEASES.—The value of bismuth in alleviating the intense itching and irritation which accompanies chronic eczema and other forms of skin disease is less known than it ought to be. In some obstinate cases, in which the inflamed condition of the derma is aggravated and kept up by the constant scratching and rubbing which the patient finds it impossible not to indulge in, an ointment containing half a drachm of subnitrate of bismuth to the ounce of simple ointment, rubbed up with a little spirits of wine, gives great relief. It has been found to be far more efficacious as a soothing remedy than the benzoated, zinc ointment, more commonly used. Dr. McCall Anderson, in recommending bismuth, observes that the ointment must not be made with the benzoated lard, or the reverse of a soothing effect may be produced.—*The American Medical Weekly; Medical Times and Gazette*.

DIED.—In New Bedford, Mass., October 9th, of membranous croup, John Bradford, youngest son, and, October 27th, George Henry, oldest son, of Dr. John H. and Alice W. Mackie.

MORTALITY IN MASSACHUSETTS.—Deaths in eighteen Cities and Towns for the week ending October 24, 1874.

Boston, 140; Worcester, 12; Lowell, 13; Milford, 5; Chelsea, 6; Cambridge, 17; Salem, 10; Lawrence, 14; Springfield, 10; Lynn, 9; Gloucester, 13; Fitchburg, 3; Newburyport, 4; Somerville, 10; Fall River, 17; Haverhill, 5; Holyoke, 8; Pittsfield, 4. Total, 300.

Prevalent Diseases.—Consumption, 58; typhoid fever, 19; scarlet fever, 16; pneumonia, 14; cholera infantum, 13; croup, 7.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 31, 130. Males, 68; females, 62. Accident, 4; asphyxia, 1; bronchitis, 7; inflammation of the brain, 1; congestion of the brain, 3; disease of the brain, 7; cancer, 1; cyanosis, 1; cholera infantum, 4; cholera morbus, 1; consumption, 21; convulsions, 1; croup, 3; debility, 2; diarrhoea, 2; dropsy of the brain, 2; drowned, 1; dysentery, 2; diphtheria, 4; epilepsy, 1; remittent fever, 1; scarlet fever, 5; typhoid fever, 4; gastritis, 2; hernia, 2; disease of the heart, 6; hemorrhage, 1; intemperance, 1; insanity, 1; disease of the kidneys, 1; laryngitis, 1; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 9; marasmus, 7; old age, 6; paralysis, 2; pleurisy, 1; premature birth, 2; puerperal disease, 1; enlarged prostate, 1; pyæmia, 2; tumor, 1; imperforated urethra, 1.

Under 5 years of age, 53; between 5 and 20 years, 8; between 20 and 40 years, 25; between 40 and 60 years, 25; over 60 years, 19. Born in the United States, 88; Ireland, 32; other places, 10.

THE

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Original Communications.

A CASE OF EXTRA-UTERINE PREGNANCY.

By E. WARREN SAWYER, M.D. (Harv.), of Denver, Colorado.

A FEW weeks since, Dr. Justice, of this city, submitted, for examination, a specimen of matter aspirated by him from an abdominal tumor—a supposed ovarian cyst. He stated that the tumor was of three years' duration, that he had decided upon an operation, and asked my assistance on the following day.

The patient lived at Boulder City, thirty miles from this place, among the foot-hills of the Rocky Mountains.

Grossly, the specimen looked like pus, but with the microscope not a characteristic pus corpuscle could be seen; only fat globules, of various sizes, and granular matter. With liquor potassæ, it behaved like pus, and rapidly gelatinized. Subsequently to the termination of this case, I learned the following details:—

Mrs. G., aged 37 years; married twice; two children by first marriage, three by the second; youngest child 5 years old. Has always enjoyed perfect health. Catamenia ceased March 28, 1871. Dates her pregnancy from that time. Had all the usual symptoms of pregnancy till the third month, when "colicky pains" began, slight at first, increasing in severity, and not ceasing throughout her gestation; at no time was she free from colic. During the fourth month, she swooned from the severity of this pain, and was confined three days to her bed. Felt the motions of the child, at the usual time, stronger than she experienced in her previous pregnancies.

On the 30th of December, 1871, was taken, at night, with regular labor-pains, the seat of which she referred to her left side.

I learned, from her medical attendant, that there was no dilatation of the os uteri, at that time, though the short neck was very soft; and, high up in the pelvis, the head of the child was felt. Her pains continued throughout two days, at the end of which, all signs of labor had subsided. Motions of the child were still strongly felt.

Three days afterward, her breasts became full and painful; large quantities of milk were pumped out with relief to her.

Twelve days after the first attempt at labor, regular pains again set in, which continued for a day, at the end of which, all motion ceased, after a most violent action of the child. Milk again appeared in her breasts, but gave no trouble.

There was no discharge of blood during either attempt at delivery, though, in both, the nurse declared there was a discharge of meconium; that she had seen meconium in previous confinements, and was able to determine this.

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She left her bed after a day, and felt very comfortable. Her large figure was preserved till the following March, when a vaginal discharge of blood began, after which she found herself growing smaller. Hæmorrhage persisted for the next three months, slight at times, but weakening her, and confining her to her bed nearly one half the time. After a tonic treatment, wasting ceased, and from this period till June of the present year, her menses returned with the strictest regularity, and she called herself well.

As evidence of the immunity from discomfort which she enjoyed, during this long time, I have only to state that she assumed the entire charge of her large family, and indulged often in dancing at balls, of which she was passionately fond.

In June last, her catamenia did not appear, and she thought herself again in the family way. During the following month, a violent hæmorrhage occurred, continuing for forty-eight hours, during which it was thought she aborted. Soon afterward, she had a violent chill, and began to grow large. Chills recurred frequently and irregularly, followed by fever, till her death.

When I first saw her, August 17th, her face presented an emaciated appearance, with a bright red spot upon each cheek. Pulse 96, soft and compressible. Temperature normal. The dyspnoea was most evident. The abdominal enlargement was uniform, and as great as that of a woman at full term. Fluctuation was evident to the left of the median line in front, but not on the right side. My finger in the vagina could feel no cervix uteri, and the os could be felt only as a slight depression at the summit of a very long vagina. The sound could not be made to enter the uterus, though many curves of the instrument were tried.

Dr. Justice being still of the opinion that we had to do with an ovarian cyst, decided upon an operation, which was done jointly by Dr. Justice and myself. The anæsthetic (equal parts, by weight, of chloroform and ether) was administered by Dr. Dodge, of Boulder. An incision, some four inches in length, was made through the abdominal walls, in the median line, mid-way between the umbilicus and symphysis pubis. A large, reddish-purple globe now sprang into view. A hand, passed into the abdominal cavity, discovered this tumor attached to the entire circumference of the brim of the pelvis; the uterus was not felt; upon extending the incision downward, this organ was seen in the median line, more than twice its normal length, and bent abruptly over the upper border of the symphysis. The flexion of the uterus forward explained our inability to pass the uterine sound.

The tumor seemed to spring uniformly from the posterior surface of the uterus.

The intestines were pushed up by the cyst, and the omentum and small intestines were firmly adherent to its upper and posterior surface. No trace of either ovary or Fallopian tube was seen.

The needle of Potain's aspirator was plunged into the anterior wall of the cyst, and a little matter drawn; a large trocar was substituted, which drained away some two quarts of matter, some of which escaped into the abdominal cavity. A child could now be felt within the cyst. It was thought advisable to proceed, and an incision some four inches in length, was made through the anterior wall of the cyst, through

which a well-formed, female child, with umbilical cord intact, and the remains of a placenta were removed, with some three pints of matter. The cystic and abdominal cavities were now carefully sponged out; afterwards, one end of a skein, of some twenty threads, of ligature silk was passed from the cyst through the *cul-de-sac* of Douglass, out of the vagina. There was some troublesome escape of dark blood from the patulous vessels of the cut surfaces of the cyst, which was only arrested by passing a ligature with a needle beneath the mouths of the vessels; these latter looked quite like the uterine sinuses.

The wounds were now closed with deep (iron) and superficial (silk) sutures; the abdomen was well covered with cotton batting.

An enema of brandy was given twice during the operation, which consumed about one hour.

The patient did not rally, and died twenty hours afterward.

The foetus was well preserved, very white and hairless; in fact, it had the appearance of a foetus preserved for a long time in alcohol. Its weight was seven and one-half pounds. In extending the flexed forearm, the cuticle was cracked transversely at the bend of the elbow, showing the adipose tissue beneath very yellow and hard, like adipocere. The odor from the matter and child was slightly nauseous, but no odor of putrescence was noticed.

ON ERYSIPELAS.

By J. C. GLEASON, M.D., of Rockland, Mass.

Read before the Plymouth District Medical Society, October 14, 1874.

THE appearance, during the spring and earlier summer months, of an unusually large proportion of cases of erysipelas in my practice, occurring, as I believe, epidemically, led me to observe what I could of the nature, course and proper management of this disease.

Erysipelas is described by most modern writer under two forms.

I. *Sporadic, or Idiopathic*, which arises from internal causes alone, and which usually attacks the integument of the face, though no part of the surface of the body is exempt from it. The skin alone, or more commonly, the skin and areolar tissue are involved, the affected part becoming of a deep red color, hot, painful and swollen. The disease was known in early times, in Scotland, as "the rose;" in England and in this country as "St. Anthony's fire."

II. *Traumatic Erysipelas*, that which follows a wound, and may occur in any part, as an unhealthy, low inflammation, tending to spread in all directions.

Both these varieties are usually announced by marked constitutional symptoms—chills or chilliness, pain in the back and limbs, nausea, and sometimes vomiting. Soon, the tongue becomes coated, and shortly, if not at first, typhoid symptoms are developed, delirium and ataxia.

As to the distinction which has been made between simple and phlegmonous erysipelas, so called, it may be well questioned whether some writers have not confounded phlegmonous inflammation, which often develops itself beneath an erysipelatous surface as a complication, and which frequently terminates in suppuration, with true erysipelas, which never, of itself, suppurates, unless we except some

cases in which are developed a few small abscesses, not truly phlegmonous in character. The duration of erysipelas is less on one spot than that of phlegmonous inflammation.

Velpeau says, erysipelas is best described as a sheet of inflammation, which, lasting only four days in one place, travels on, spreading itself out farther and farther above the tissues, whose deeper layers are not attacked by it, even though they may suffer from phlegmonous inflammation. To use his figure, it is something like a rising tide, which encroaches more and more upon the shore, only differing in this, that it never ebbs.

Thus it is a true dermatitis. Attention to this particular will aid to determine whether we have erysipelas, or simply a phlegmon of greater or less severity.

I have often verified Prof. Velpeau's statements by finding that desquamation will begin to take place in four days at the point where the erysipelas first made its appearance, while, meanwhile, it may be invading new portions of the surface, and the whole course of the disease may, and, in fact, usually does, last from eight to ten days, or may even be prolonged to six weeks. In any case, it will continue till the poison which has caused it is eliminated, and, during its course, large portions of the surface may be traversed over.

Within a year, I had a patient, a lying-in woman, who had had mammary abscess, resulting from exposure, and afterwards pneumonia, who, during her convalescence from the latter disease, while yet unable to sit up more than fifteen minutes twice a day, began to have slight shiverings, anorexia, delirium, rapid pulse, slight amblyopia—symptoms which, in a day or two, were explained by the appearance of erysipelas covering nearly three-fourths of the surface of both arms, and extending upon the chest.

The eruption subsequently appeared upon the side and one hip, and lasted in all some eight to ten days, travelling, in the time, over quite a considerable portion of the surface of the affected side.

This case, I remember as a good illustration of the spreading of this affection, the parts first attacked having been restored while the disease was invading new portions of the cutaneous surface. I also noted well the truth of Velpeau's statement, that just four days were required before the affected tissues began to return to health.

Before proceeding to treat of the truly epidemic variety of this disease, or what has been by some described as erysipelatous fever, and which deserves special consideration, I wish to speak of the terminations, causes and diagnosis of this disease.

When erysipelas terminates favorably, it is either in resolution, by desquamation of the cuticle with slight œdema, or by forming large bullæ or vesicles from effusion of serum under the cutis, which sometimes are followed by some small, rather superficial abscesses, points of a phlegmonous character. When a fatal termination occurs, it may be from extension of the inflammation to the brain, or its membranes, giving rise to effusion and coma, or, in some cases, the larynx becomes inflamed, and œdema of the glottis causes death by suffocation. In the larger proportion of fatal cases, death is owing to failure of the vital powers, as a result, not of the inflammation, but of a true blood poisoning by morbid atoms, the toxic character of which is not yet fully known. Yet, although the exact nature of the poison may not

be known, we may conjecture that in all the zymotic diseases, as erysipelas, typhoid fever, and the like, the principle of infection or contagion acts in the blood as a ferment, a true catalytic agent, capable of inducing extensive and disorganizing changes in the composition of the blood itself. *Pari passu*, with the elimination of the poison, and the restoration of the blood, comes the abatement of the inflammatory symptoms and return to health.

Of the sources whence this poison is derived, that is, just what may be the exciting cause or causes of this affection, we can only say that they may be nearly or quite like those which are by some thought to produce typhoid fever, viz., atmospheric influences, bad drainage, foul and unhealthy habitations, disordered secretions, insufficient diet, and the poison engendered by over-crowded dwellings—in fine, any and all of the usual sources of epidemic diseases, may cause this.

Druitt suggests that the probable cause of the milder, isolated and non-contagious cases of erysipelas is some morbid state of the blood, generated in the system itself, through the combined influence of disordered secretions and atmospheric conditions, while the severe and contagious form must arise from some more decidedly poisonous source.

In large hospitals, where numbers of the sick are crowded together, and, of course, much that is noxious and poisonous is derived from their bodies, breath and excretions, we find erysipelas in its most malignant and fatal form, and often, apparently by being carried from the place of its origin to the lying-in wards or chamber, the most terribly fatal results have followed. Many cases are cited to show that the contagion of this disease may cause puerperal peritonitis.

DIAGNOSIS.—This is usually not difficult, after the local inflammation occurs. The disease has certain pathognomonic signs, which should, however, be thoroughly known, so that, at all times, the inflammation may be distinguished from erythema and lymphatic or diffuse inflammations, which comprise all, or nearly all, the cases that one would be likely to misapprehend.

First, there is upon the outer limits of the disease a red, festooned border, slightly in relief, which can be perceived by lightly passing the finger over it. Beyond this border, the tissues are healthy, while the redness is greatest at its edge. From the centre to the circumference, the redness increases, and is more marked at the circumference. This is pathognomonic. Again, erysipelas often commences without wound or excoriation; lymphatic inflammation, never. Erysipelas spreads itself out in sheets in all directions; lymphatic inflammation appears in patches, following, always, the direction of the lymphatics, that is along the axis of the limb. Other inflammations never leave the point of origin, except slowly, while the part where erysipelas commences is usually healed when the affection has involved parts further along. Other inflammations often terminate by abscess; erysipelas never, unless it becomes phlegmonous, which, according to Velpeau, is a complication. Again, we must notice the fact that while local treatment may put an end to other inflammations, it will never stop erysipelas.

I wish now to speak of a variety of this disease, of which Flint, in his practice, treats as a form of continued fever; having the local inflammation in a proportion of cases, it has, for want of a better name,

been characterized erysipelatous fever. It may occur sporadically, or as an epidemic, commonly as the latter. It is to be distinguished from erysipelas, occurring as a surgical or a local affection, because, in the former affection, the febrile disturbance is primary or essential, while in the latter form it is symptomatic of the local inflammation, in that it accompanies it. Moreover, in the epidemics of erysipelatous fever which have been studied, as in the one which prevailed so extensively in many portions of this country, from 1841 to 1846, it was found that the local manifestation of the erysipelas, as an inflammation, was by no means constant in all cases. On the contrary, there were great variations at different times and places.

Dr. Bennett, of Bridgeport, Conn., in 1853, wrote an article, which appeared in the *New York Journal of Medicine* for July of that year, stating that he observed erysipelas in only one-sixth of 150 cases. When it did occur, the head was oftenest the seat of the local erysipelas. In nearly all, marked ataxic symptoms, passive delirium and great debility were observed; in fact, a truly typhoidal state. In some localities, it prevailed quite extensively, and the mortality was large. It was called "black tongue" by some writers, from the appearance of the tongue commonly observed. It did not appear to be transported, or to travel from place to place, but often appeared in isolated sections: its course, in general, "was irregular and erratic," although Dr. Bennett states that it seemed to follow the streams and water-courses in his section.

The attack was often sudden, beginning with a chill, pains in the limbs, and, usually, great prostration. Inflammation in the pharynx occurred in all the reported cases. Sometimes, it was very severe, and involved the larynx, giving rise, in some cases, to œdema of the glottis, and death by suffocation. Tonsillitis and inflammation, and suppuration of the lymphatic glands of the neck also occurred occasionally, as a complication.

Pneumonitis, pleuritis, acute inflammation of the peritoneum, as well as of the cerebral meninges, were also noted by different observers in some cases. In yet others, petechial spots and abscesses, without local erysipelas, were observed.

Cases varied much as to severity and duration, some mild ones ending in six to eight days; while others, because of some severe complication, either ended fatally, or were indefinitely prolonged.

A most important fact noticed during the epidemic of 1841 to 1846 was the prevalence of puerperal fever, which so uniformly appeared in conjunction with this epidemic as to show some pathological connection between the two diseases. Many held the belief that the peritonitis was caused by a virus carried by the physician from a case of erysipelas, or erysipelatous fever, to the puerperal woman. I have no doubt, from what evidence I can gather, that this transportation can take place, and I would be unwilling to attend a midwife's case the same day that I had visited a patient with erysipelas.

But to return: Flint says, remarking upon this point, "Assuming that this is true in certain cases, still puerperal peritonitis was by no means uniformly to be accounted for in this way. A rational explanation, in many, if not all, cases is, that labor acted as an exciting cause, and determined the situation of the local affection in those predisposed to the disease from the action of the epidemic influence."

The *mortality* from erysipelas in England alone averages, according to recent authorities, 2000 annually.

TREATMENT.—This must be conducted on the principle of leading the disorder to a safe termination, rather than on any attempt to arrest it by active remedies.

Mild cases will need but little medicine. In all cases, we need to remember that we have a poison to be eliminated, and a condition of more or less debility, a result of the blood degeneration which this poison induces, to be combatted. Hence, in addition to putting the patient into a well-ventilated apartment, giving him, at the commencement, cooling drinks, and light, but nourishing, diet, we may administer, as an eliminative, a full dose of one of the neutral salts, with a little rhubarb. After operation of this cathartic, we may usually begin with our plan of "tonic treatment," for it is a well-established fact, to-day, that this places the patient in the most favorable condition for recovery. Constitutional treatment, on the restorative plan, is his greatest need, for erysipelas kills, if it kills at all, as a general or constitutional disease, and not from the severity of the local inflammation. To this end, we give beef-tea, milk, wine, sulphate of quinine in tonic doses, or, if the stomach will bear it well, the muriated tincture of iron. The latter remedy may often be profitably given in pretty large doses, well diluted with sweetened water. In cases of great debility, brandy or brandy punch may be freely administered.

Locally, I believe that of all applications, fomentation by flannels wrung out of a hot decoction of poppy-heads, assiduously applied, as recommended by Dr. Tanner, of London, is the best. Cold lotions are sometimes agreeable, but, as a rule, I think that warm applications, if not safer, are, at least, more generally followed by greater relief.

Instead of the decoction of poppy-heads, hot water with tincture of opium answers the purpose.

Some surgeons, especially English, recommend painting the surface with collodion, which not only serves to protect the skin, but to contract the congested cutaneous vessels, and thus preserve their integrity.

As to preventing the extension of the inflammation by painting upon the sound tissues around the diseased part, I have seen it fail oftener than otherwise. Velpeau says, *treatment does not, will not, stop erysipelas*, though it may put an end to lymphatic and other forms of inflammation.

The disease is self-limited, and when the morbid atoms which cause it are eliminated, the symptoms cease and health returns, unless there is some complication. In the phlegmonous inflammations, which so often complicate erysipelas, so soon as pus is suspected, or a sensation of quagginess in the tissues is noted, or vesications appear on the surface, sufficiently free incisions are absolutely demanded, to allow the exit of sloughs and purulent products. The free use of tonics, food and opiates is to be enforced in such cases.

In case of infantile erysipelas, the child's strength must be supported by abundant nourishment, tonics and stimulants. In unhealthy infants, a slight wound may cause the development of this disease. In 1861, two infants were reported to the Registrar General of England to have died from erysipelas following vaccination.

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. WADSWORTH, M.D.

Choroiditis Syphilitica.—Förster (*Graefe's Archiv*, xx. 1), describes under this title a disease, the objective symptoms of which accord with those usually known as typical of syphilitic retinitis. Faint greyish discoloration of the central portions of the retina, delicate, dust-like opacity of the central and posterior part of the vitreous, slight alteration of the retinal vessels, and want of clearness of outline of the nerve are the main points. The dust-like opacity of the central parts of the vitreous he regards as a very important and nearly constant symptom, and to this vitreous opacity are to be referred in part the apparent changes observed in retina and disc. Lack of contrast between the color of the disc and that of the choroid, partly on account of the greyish tinge of the retina, partly from the increased redness of the disc, serves also to make the outline of the latter indistinct. While, however, faint dust-like opacity of the vitreous is the typical form, there may be membranous opacity also, and in some cases opacity sufficient to prevent any recognition of the papilla.

In many cases there are also circumscribed changes in the color of the fundus, generally to be made out with difficulty, situated most frequently in the region of the macula, and usually in the form of groups of light red or whitish dots, sometimes as larger pale grey spots. But as these objective symptoms are by themselves relatively little characteristic, Förster considers the exact knowledge of the subjective symptoms of particular importance, and it is to these especially that he calls attention. The vision may be, in lighter cases, only little decreased, but is, on the other hand, often much sunken, even to $\frac{1}{100}$, without the ophthalmoscopic changes being necessarily very great. In such case, the remarkable difference between the visible change and the amount of sight is due to defects in the central portion of the field of vision. The defects have usually the peculiarity that, at the point of fixation, a tolerable degree of perception exists, which increases by bright light, but by diminished light markedly sinks. They thus assume in some measure an irregular zonal form, the most central portion of the retina being affected to a less degree than the parts about it, while the peripheral portions still perform their functions. The central defect may take the form of a half ring about the fixation point, or may reach in one or more directions to the edge of the field of vision, and thus leave islands in the peripheral parts of the retina still capable of vision,—a condition found more frequently as the final result of this disease than of any other. In the beginning of the disease, small, isolated, peripheral, or sector-like defects are, also, often to be discovered. The defects need not early in the disease cause an unfavorable prognosis; they may appear, increase, and again diminish, within a few days, change their position, or remain for a long time. They seem to be seldom wanting, and are evident to the patient as a shimmering spot in the field.

Another very constant symptom is hemeralopia. This is often apparent even by daylight, from the fact that a very much smaller type

can be read when held close in front of the window than when the light does not fall directly upon it. With yet weaker light the symptom is more glaring, and some patients cannot distinguish the movement of the hand at a distance of a foot with an illumination by which a normal eye makes out III. Sn., and yet by daylight can read IV. or at least VIII. Observations, made by means of an instrument for determining the least amount of light required to distinguish a given object, show, perhaps, even more plainly the rapid decrease of vision with weakened light of the diseased in comparison with a sound eye.

A very constant symptom, also, is the presence of subjective appearances of light of definite character. These are generally but not always in the neighborhood of the fixation point, and consist of bright, transparent patches, not often numerous, which have a tremulous, vibratory or rotatory motion. They have a certain relation to the defects in the field of vision, and it would seem that when they are present, defects, demonstrable at least by diminished illumination, are never wanting; and when, in the earlier stages of the disease, evident defects exist, the photopsies always are observed. Still they do not necessarily coincide with the defect. The latter may increase or diminish within a short time without the change being evident in the light-appearances. They may diminish or disappear under appropriate medication and confinement to a dark room. They may disappear on perfect quiet in bed, but any movement or excitement which increases the heart's action calls them out again. They must therefore depend on conditions of circulation in the retina or choroid, not on irritation of nervous elements by exudation, &c. Exposure to bright light increases their intensity. The symptom is moreover very persistent and may continue for years, even when the disease is over and vision has much improved.

Micropsy is sometimes observed, usually only when one eye has been affected, occasionally when both have suffered, and then is specially noticed in the worse eye. As a rule, this symptom is first observed when the disease has pretty well run its course. The difference in the apparent size of objects to the two eyes may be great. That the micropsy is due to change in the retina, *i. e.*, in the relative position of the rods and cones, and not to interference with the accommodation, is shown by the fact that it is sometimes more evident as the distance of the object is increased, and also by the apparent bending in toward the point of fixation which the patient observes on a series of parallel lines.

The accommodation is often diminished during the disease, but in many cases the diminution of vision is too great to allow this point to be determined. Seldom are there means of knowing with sufficient exactness the previous range of accommodation of the patient.

Complication with iritis occurs once in 6 or 8 cases. The iritis may precede and the choroiditis follow immediately, or only after six months or longer, when old synechiæ are the single sign of the previous affection. The choroiditis may appear first and extend to the iris. In this case there is much opacity of the vitreous. Synechiæ, even though numerous, are thin and yield to atropine, and the pupil before the use of atropine, and spite of the synechiæ, is somewhat dilated. There is no tendency in the iritis to become chronic, and the prognosis, so far as the iritis is concerned, is good.

That the disease is a choroiditis rather than a retinitis, Förster believes is shown by the not infrequent complication with iritis, iritis being often observed in connection with choroiditis, but not with retinitis; by the symptom of hemeralopia, which is wanting in affections of the opticus and anterior layers of the retina, but found with inflammations of the choroid; by the opacity of the vitreous, nearly always present with choroiditis, seldom with retinitis; by the diminished accommodation, also associated with choroidal, not with retinal, affections; finally, by the changes visible in the choroid and retina after a long and unfavorable course of the disease, which can only be referred to a choroiditis. The choroid is the organ which is affected first, though the functional disturbances of the retina prove that it also invariably is implicated. Nor is it denied that a pure retinitis may be excited by syphilis.

The disease varies much in its course. In general, the disturbance of vision comes on slowly, during weeks or months, but it may develop to a high degree within a few days. It yields to suitable treatment, at least to a certain degree, but shows a great tendency to recurrences, the commencement of which often cannot be detected by the ophthalmoscope.

Complete recovery takes place seldom and only when the case has been light and early subjected to treatment, but vision may slowly increase for years. In most cases, vision of $\frac{3}{4}$ or $\frac{1}{2}$ may be reached. It remains below this only in severe cases where large central defects in the field have appeared and treatment has been interrupted. Here changes in the fundus can always be discovered at a later period: often, dense or thread-like opacities in the vitreous; disappearance of the pigment of the epithelial layer over larger or smaller patches, or of the stroma of the choroid; black masses of pigment of various form; more or less marked atrophy of the retina, recognizable from the scanty and small vessels and homogeneous yellowish-white discolorations of the papilla; more seldom, rounded or stellate white spots, particularly in the region of the macula. In the worst cases, there remains a high degree of amblyopia with only isolated patches of retina which still retain their function. The disc and vessels appear as in retinitis pigmentosa, and there are deposits of pigment which often resemble those found in that disease, but do not seem to bear the same relation to the retinal vessels.

Regarding the etiology Förster says, "Where the above given objective and subjective symptoms are present, one may diagnose syphilis with the same amount of certainty as one diagnoses renal degeneration from the ophthalmoscopic appearances of retinitis morbi Brightii, only the confirmation by the patient does not usually follow with the same honesty that the chemical examination of the urine always affords." In every case which remained long under observation, he was able to confirm the diagnosis by the confession of the patient or other evidence. The choroiditis does not occur among the earlier symptoms of secondary syphilis; seldom so soon as four or six months after the primary infection. In more than half the cases, other secondary symptoms are present, or their traces can be made out.

It is proportionately frequent in the latter half of life; of fifty-five patients, twenty-four were above forty, fifteen above fifty years of age. In hospital practice, Förster found the number of men and women af-

fectured about the same, together 2.5 per thousand patients. In private practice, among the well-to-do classes, the number was 4 per thousand, and 90 per cent of these were men. The greater frequency of the disease among the well-to-do is however only apparent, since the proportion of these with troubles of the conjunctiva or cornea who came under his treatment was much less, and therefore the percentage of other affections much greater than with the poor.

The administration of mercurials, with detention in a darkened room for at least four weeks, is the only treatment which always promises a good result, and of the different methods of giving mercury inunction is decidedly the best. "All those cases, in which the first course of treatment radically removed the disease, had employed inunction till salivation was produced, and remained in a darkened room."

TRICHINOSIS PRODUCED BY THE MEAT OF A DOG.—In January, 1874, a woman was admitted to the hospital in Langensalza, suffering from very grave symptoms, all pointing to the existence of trichinosis, and upon subjecting a small excised fragment of the deltoid muscle to the microscope, numerous encapsuled parasites were readily detected. This being the only instance of the disease known to have occurred in the vicinity at that time, the attempt was made to elucidate the source of the infection, which resulted in extracting from the patient the following extraordinary statement:

For many weeks previous to her illness her extreme destitution had prevented her from purchasing any meat of any sort, nor had she been able to buy any fat, nor any other portion of a hog. Her meals were all prepared at home, her food consisting of dogs, cats, and also, during the season, marmots and foxes. The only meat which had been brought into the house for many weeks consisted of a pair of cats, the greater part of which was still left, having been smoked, and a dog which had been sent her for culinary purposes by a neighbor. This animal appeared very fat, and upon killing him she observed that a quantity of yellow fluid was contained in the thoracic and abdominal cavities, and that the meat, which was of a very pale color, could be pressed together like a sponge. Although the animal did not appear to her healthy, it was, nevertheless, dressed, cooked and eaten. In a few hours after the meal, nausea and purging set in, which left her upon the following day extremely prostrate, and swelling of the face and inflammation of the eyes rapidly ensued.

The remaining supply of cat-meat found in the house was examined and found free from trichinae, and the conclusion was therefore formed, that the woman had unquestionably become infected by consuming the flesh of the diseased dog. She was restored to health at the expiration of four months.—*Correspondenz-Blatter des Allgem. aerztl. Vereins von Thuringen*, No. 9, 1874.

FRACTURE OF SEVENTH CERVICAL VERTEBRA.—Some time ago a patient entered Bellevue Hospital, with complete paralysis, and on examination the spinous process of the vertebra prominens was found to be fractured.

The general paralysis soon improved, but in the right arm the paralysis yet persists.

The inference is, that there was an extravasation into the meninges at the place of fracture, together with injury to the trunks of some of the nerves going to form the brachial plexus on that side.

The patient received the injury by being thrown down and striking on the head and neck.—*N. Y. Med. Journal*.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC'Y.

SEPT. 28th.—*A Case of probable Lead-poisoning, resulting fatally, from a Bullet Lodged in the Knee-joint Twelve Years previously.*—DR. ELLIS said that he had seen the patient twice in consultation with Dr. Harris, of Arlington, first in June, and again in July. Twelve years ago, the patient had been wounded in the knee, being hit from the front, while his knee was flexed; the bullet was never extracted, but the wound healed, and the patient had full use of his leg. In February, he began to be troubled with the complaint for which Dr. Ellis saw him, namely, severe attacks of colicky pain in the abdomen, always preceded by obstinate constipation, and accompanied with vomiting. He had been to Florida last winter, and while there had one of these attacks. When he returned, he stated that his bowels felt to the touch like a mass of sausages. Dr. Ellis saw him a second time in July, when the symptoms complained of were the same, viz., obstinate and constant constipation, pain amounting to colic in the lower part of the abdomen, which, however, was never followed by any soreness, and occasional vomiting of bilious-looking matter, which was never offensive; he never threw up his food. From these symptoms, which were the only ones complained of, Dr. Ellis thought the case must be one of obstruction of the bowel from some cause. He called upon Dr. Harris, who was present, to state what additional facts he knew with regard to the case.

DR. HARRIS said that a week after seeing Dr. Ellis for the last time, the patient had an epileptic convulsion, which was followed by a second one, and after that his mind never seemed to be quite right. The convulsions continued at intervals, and the constipation was very obstinate, so much so that Dr. Wyman, who saw the case in consultation, thinking that there must be obstruction of the bowels, inflated him, and found that at least there was no obstruction that was not pervious to air. He subsequently became violently delirious, and died. About six weeks before death, a blue line was noticed on his gums. The possibility of its being a case of lead-poisoning was considered, and eliminated, from the fact that careful search failed to show any possible way by which lead could have entered the system.

DR. ELLIS showed the lower end of the femur. A large, conical, leaden bullet was imbedded in the inner condyle, its base being exactly level with the articular cartilage, its longest diameter parallel with the shaft of the bone between the two condyles. The exposed surface of the base was smooth and polished, and, evidently, must have rubbed against the cartilage covering the head of the tibia with every motion of the joint. There was no evidence of any recent inflammatory action, in either the bone, cartilages or synovial membrane, except, perhaps, that the head of the tibia opposite the foreign body was eburnated. Some of the loose connective tissue in the neighborhood of the bullet was slate-colored. Dr. Ellis said that he considered this case as an unique one. As far as he knew, there were no cases reported of lead-poisoning from bullets lodged in the tissues; but the circumstances of this case were certainly such as would prove the

absorption of the soluble salts of the metal. There was a surface of lead, exposed to constant attrition, in a synovial cavity where there was a constant secretion and absorption of fluid, and this was, certainly, a very different case from that of a bullet being imbedded in muscle or bone.

Dr. FIFIELD, who had also seen the patient, after Dr. Ellis, in consultation, said that at the time he saw him he had had two convulsions, of an epileptic character, and that he was beginning to grow dull in his intellect. He was struck with the extreme anæmic look of the patient, and also noticed a peculiar stagger in his gait. There was a marked blue line on the gums of both jaws, but the power of grasping did not seem to be diminished. He had considered it, undoubtedly, a case of lead-poisoning, although he was not told of the wound until afterwards.

OCT. 12, 1874.—*Aneurism of the Aorta.* Dr. SHATTUCK reported the case.

Sept. 26th.—M. W., æt. 35, single, painter, entered the hospital, from Charlestown, Mass., this morning, about ten o'clock, with urgent dyspnœa, face cyanosed. Said to have been well up to three weeks ago, since which time he has had frequent attacks of dyspnœa, gradually becoming worse. Had six attacks yesterday, lasting fifteen or twenty minutes each. Great difficulty in talking. Respiration noisy, so that thoracic examination is almost impossible. In all parts, percussed resonance seemed to be normal, and at intervals there seemed to be heard some râles. Pulse 100; weaker in left than in right radial. No pain.

Had morph. sulph. grain $\frac{1}{6}$, subcutaneously, with some relief, but distress and labor of breathing were still great. About 3 o'clock, he was seized with a severe paroxysm, which lasted seventeen minutes. Lips and face blue, almost black, veins distended. Loud rattling in respiration. Had taken of morph. sulph. gr. $\frac{1}{6}$, and inhaled nitrite of amyl. The latter seemed to give some immediate relief and comfort. Slept for a time, after being relieved, though breathing was still somewhat noisy. Swallows with difficulty. Tongue has white coat. Evening, temperature 103.8°. Pulse 98. Took whiskey, \mathfrak{z} i. only.

27th.—Had a similar attack, exceedingly severe, at 2, A.M., and one less severe at 4, A.M., each lasting about twenty minutes, for which he had morph. sulph. gr. $\frac{1}{6}$ only. Took, during the night, milk, \mathfrak{z} xx., and whiskey \mathfrak{z} iv., and swallows more easily than yesterday.

Morning, temperature 103.8°. Pulse 100. Lying on side, or sitting nearly upright in bed. All the respiratory muscles in violent action. Veins of neck distended. Respiration frequent and noisy. Exploration of thorax difficult and incomplete. Râles over both sides, and respiratory murmur. Some pulmonary resonance over both sides. Pulse regular. First sound of heart, clear. Morphia, gr. $\frac{1}{4}$ twice in forenoon, the first time with relief, but not the second time. Inhaled nitrite of amyl. Pulse, M., was 120, and growing weaker. Had brandy by mouth and rectum, as swallowing became difficult, but continued in about the same state. Respiration noisy and labored till about 3, P.M., when he died.

Autopsy by Dr. FRIZ.—*Post-mortem* rigidity very marked. Numerous old adhesions of the pleuræ of both lungs, which, in lower cavity,

were so strong that the lung tissue was torn in removal. About four ounces of serum in right pleural cavity.

About one ounce of serum in pericardium. Tumor above heart adherent to sternum in front, and pressing on trachea behind. Fresh adhesions between both lungs and tumor. Lungs almost covering tumor in front, except a space about three-fourths of an inch in width.

Spleen enlarged, congested, adherent to under surface of diaphragm.

Kidneys rather flaccid, capsule peeling easily; about normal in size, congested.

Liver so congested as to present the nutmeg appearance.

Stomach normal.

Intestines not examined.

On opening the tumor, three distinct sacs were seen. The mucous membrane lining the trachea showed some points of ulceration.

DR. JACKSON said that the case was an interesting one, from the fact of there being three distinct aneurismal sacs; two were not unfrequently found.

The fact that the lining membrane of the trachea was ulcerated was extraordinary, as the tumor did not come in contact at all with that organ. He had often seen and spoken of an ulceration of the mucous membrane of the trachea, and also of the œsophagus, when these organs were in contact with an aneurismal tumor, and referred to the fact that in such cases nature seems to act contrary to the usual rule of striving to prevent the ill effects of any lesion or disease, as this ulceration seemed, evidently, to be the commencement of an effort to establish a communication between the aneurism and the trachea, or œsophagus, as the case may be. The duration of the disease in this case was also remarkable for its shortness, as he had been able to work up to four weeks before death, and the symptoms had not certainly shown themselves more than six months before the end. As the tumor did not press upon the trachea, the dyspnea, which was so urgent in this case, must have been due to pressure on the recurrent laryngeal nerve. He also spoke of the fact of there being no structural change in the heart itself, although there was such extensive disease near it that it seemed impossible that its function should not have been seriously interfered with. He had repeatedly found this to be the case before.

Dr. FIZ said that from the character of the walls of the aneurism, and the absence of that taut, firm condition usually found in sacs of slow growth, one would infer that in this case the growth must have been very rapid, the truth of which inference was also borne out by the clinical history.

Tænia Dislodged by Emulsion of Pepo.—DR. DRAPER exhibited a tænia, including the head entire, which had been dislodged from the intestines of a man aged 28 years. The remedy used was the bruised seed of the pumpkin made into an emulsion and given, upon an empty stomach, in drachm doses, at intervals of an hour until four doses had been taken. The administration of the seeds was followed at once by a cathartic, two drops of croton oil in a pill. Within an hour, there were four loose dejections, with the second of which the present specimen came away in three sections. The patient had passed sections of the parasite during the last seven years, at long intervals.

Dr. WHITE said that the head in this case was darker than he had

ever seen it. As a practical point, it was very extraordinary how a tapeworm, after resisting almost every kind of treatment, would finally be killed by a dose of something. The joints of the *tania solium* and *medio-cannellata* are the same, the only difference between them being in the head. The *medio-cannellata* has no beak between the four circlets as the *solium* has, but there is rather a depression there; the head is also darker, containing more pigment.

Twin Fœtuses of Different Size.—DR. WHEELER reported the case, and showed the specimens, which had been expelled by a woman six weeks after an unsuccessful, as she thought, attempt to produce an abortion by means of a catheter. Five weeks after the attempt, she was seized with inflammatory symptoms, pointing to the uterus, and called in a physician, who found the os somewhat dilated, and a portion of a funis protruding. He tried, without success, to dilate the os, and watched the case for a week, at the end of which time the specimens were expelled. The patient supposed herself to be about four months pregnant, and one of the fœtuses was at about the stage of development, and of about the size, that would show the correctness of the calculation. It was of a bright scarlet color, looking as if fresh blood had been extravasated under, or into, the epidermis. The other was hardly a quarter as large and natural in color.

Dr. Wheeler said that the specimens were interesting, as they suggested the question whether the difference in size was due to an arrest of development and growth of the smaller one, by the attempt to produce abortion, six weeks before, or whether it was a case of superfœtation. As the membranes were ruptured before she was seen by the physician, it could not be determined whether they were contained in a single amniotic sac, or whether there were two sacs, one for each.

SULPHITE OF LIME FOR CIDER.—An eminent preacher, in a recent address before an agricultural association, said that he did not advocate the making of cider, but if his hearers *would* make it he advised them to “make it good.” If made good and *kept* good—that is, checked at the right point in the process of fermentation, and prevented from becoming “hard” and alcoholic—it is a beverage to which few, even of those who hold extreme views on the temperance question, will make serious objection; and there is no doubt that this desirable consummation may be effected by the judicious use of the neutral sulphite of lime. The experience of those who have tested it for this purpose during the past sixteen years is unequivocal upon this point. It is important, however, to remember that its only action is to *arrest* fermentation, not to counteract it after it has once taken place. No backward step is possible in this process of natural chemistry, any more than in that of decay, to which it is analogous. You may keep a ripe apple sound for months with proper care, but if it once begins to rot there is no restoring it to soundness again.

Some two years ago, one of our western correspondents recommended the use of the sulphite for preserving fruits. His directions for the process, which we reprint for the benefit of those who wish to try it, were as follows: “Use two teaspoonfuls of sulphite of lime to one gallon of fruit, with the usual quantity of sugar. Put in the lime while the fruit is heating, in order that any impurities in fruit or sugar may rise to the top and be removed. Fruit thus prepared, put in jars and stored in a cool place, will keep for months.”—*Boston Journal of Chemistry.*

Bibliographical Notices.

Health and Education. By the REV. CHARLES KINGSLEY, F.L.S., F.G.S., Canon of Westminster. New York: D. Appleton & Co. 1874. Pp. 411.

WE owe an apology to the publishers of this book, as well as to our readers, for the length of time we have left it unnoticed. Suffice it to say that the delay was caused by a combination of accidents for which we are not responsible.

The book is a collection of essays and addresses, most of which have more or less of a medical bearing. The attractive style will procure it many readers, who, we hope, will profit by the practical wisdom it contains. On some points, we see statements concerning disease, which a medical man would probably advance rather more cautiously; but they are not of a nature to do harm, and it would be hypercritical to dwell on them in reviewing a popular work.

The Canon is a reformer, and a radical one, with but little respect for customs venerable only by antiquity; one inclined to make the most of the present, and hopeful of the future. One of the best chapters is an address on the "two breaths," namely, that we take in and that we give out, and is naturally a strong plea for ventilation. In it, the author says: "And if any excellent person of the old school should answer me, 'Why make all this fuss about ventilation? Our forefathers got on very well without it,' I must answer that, begging their pardons, our ancestors did nothing of the kind. Our ancestors got on, usually, very ill in these matters; and when they got on well, they had good ventilation in spite of themselves. First, they got on very ill. To quote a few remarkable instances of longevity, or to tell me that men were larger and stronger, on the average, in old times, is to yield to the old fallacy of fancying that savages were particularly healthy, because those who were seen were active and strong. The simple answer is, that the strong alone survived, while the majority died from the severity of the training. Savages do not increase in number; and our ancestors increased but very slowly for many centuries."

This lecture was delivered to an audience of ladies, and we regret that we have not space to quote the remarks on tight-lacing. The ladies must have thought the lecturer a very bold man. He certainly does not flatter them, and is particularly severe, in the "Lower Education of Women," on their want of physical development, and consequently of animal spirits, criticisms which, we own, we are surprised to see applied to the girls of "Old England." His picture of young ladies at a watering-place, sitting near the seashore, "enjoying, like so many flies upon the wall, the novel art of doing nothing," is as suggestive as if it were represented by lines instead of words. Further on, he says: "It is proposed, just now, to assimilate the education of girls more and more to that of boys. If that means that girls are merely to learn more lessons, and to study what their brothers are taught, in addition to what their mothers were taught, then it is to be hoped, at least by physiologists and patriots, that the scheme will sink into that limbo whither, in a free and tolerably rational country, all imperfect and ill-considered schemes are sure to gravitate." But he goes on to wish that sports not identical with, but analogous to, those of boys, might be used to give exercise and health to girls, and, with certain restrictions, the plan has something in its favor.

It was not our purpose to attempt to bring to light all the merits of the book, nor such faults as it possesses, but simply to give an idea of its nature, and this, we hope, may be gained from the above extracts.

BOOKS AND PAMPHLETS RECEIVED.

Handbook of Practice, employing Concentrated Medicines as prepared by B. Keith & Co. New York. 1874. Pp. 143.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 12, 1874.

IN spite of our prophecy in the last JOURNAL, we are absolutely astonished at the extent to which it has been fulfilled. Before the election, when writing on prohibition, we expressed our belief that the "farce was nearly played out," that "people were beginning to appreciate that the opinion of a candidate on a question of this nature is more important than the name of his party," and that "if this year does not rectify the abuse, another will." The result has been more than we dared to expect, for there is now no doubt that the coming legislature will repeal the present prohibitory law and destroy the wicked machinery by which it is not enforced. Without entering into a political discussion, we may say that the chief cause of Mr. Talbot's overwhelming defeat was his veto on the act to abolish the State Constabulary—a force so openly corrupt that, as juries have often shown, the mere fact of belonging to it makes the members' testimony under oath of little or no account. The coming legislature is largely anti-prohibition and we may expect a radical change of affairs. We rejoice at the prospect, and, let it be understood, we rejoice as the friends of temperance. We have repeatedly expressed our views, even when we knew them to be unpopular, especially in the country districts. We have maintained that moderation, not abstinence, constitutes virtue, and that the manufacture of light wines and beer was to be encouraged. We have shown that prohibition was not only a failure but a fraud, bringing with it a vast amount of immorality. It is now too late for the least honest set of prohibitionists to raise against us the cry of supporters of "free rum," by which they have tried to throw obloquy on those who differed from them as to the means of suppressing intemperance. The cry has now lost its power and will injure only the criers. We have the satisfaction of feeling that we have not allowed ourselves to be intimidated by such attacks, and that we have done our share in bringing about the triumph of temperance and morality which we confidently expect.

THE serious questions of drainage and water-supply are weighing heavily on the public mind, and, we are happy to see, are receiving the attention of the city authorities. Though, as we have shown, there is strong reason for perfecting drainage arrangements before introducing a large supply of water, it is necessary to make sure that

we have water enough to sustain a dry season without inconvenience. Since October 31st, the Water Board has published daily a warning to water-takers to the effect that the lake is falling an inch daily, and that unless we have great rains this autumn it will require the strictest economy to make the supply last through the winter. We hope that the investigations lately made will in time effect a radical reform by greatly increasing the supply, but in the mean time we must consider the best method of husbanding what we have. The results of these considerations will not be useless when a better supply is obtained, for no profusion will justify waste, and if Boston proposes to annex the whole of Eastern Massachusetts, we are very doubtful if a profusion can be obtained. There is an effectual means of enforcing economy which we think has hardly received the attention it deserves. It consists simply in obliging every house to be supplied with a water-meter and in making water-takers pay for the quantity they use. The amount wasted is immense, and it is only by means that appeal to the pocket that it can be materially and permanently reduced. We believe that even if the meters were put in at public expense they would pay for themselves. Such a plan would, of course, necessitate the appointment of inspectors, and it may be that in any case they would be useful, but we must protest against a plan which the Common Council recommends to the Legislature. It is to authorize the city to control the arrangement of all water-pipes and fixtures and to license plumbers, who should see that everything was in order in their respective rounds. It is the last clause that we object to; if we understand it aright, it makes every plumber, good or bad, an agent of the city, with much discretionary power and no special accountability. We see that the plan would be most advantageous for the plumbers, but we doubt if for anyone else.

Returning to the question of a future and permanent supply of water, we see that the committee consisting of Drs. C. W. Swan, H. P. Bowditch and E. S. Wood, which was appointed some months ago to investigate the relative merits of rivers from which water may be obtained, has sent in a summary of the results of its studies, which will be given in detail in a later report. These gentlemen have examined the matter very thoroughly, and find that the water of the Shausheen River is the best and that of the Mystic the worst. They consider both the Charles and the Sudbury sufficiently good, and, on the whole, recommend Charles River, provided that the water be taken from the storage basin above South Natick.

THE will of the late Professor Wyman, which has been duly proved, contains some bequests of great interest to the profession. His admi-

nable collection of comparative anatomy is left to the Boston Society of Natural History in consideration of a very moderate sum. Though not very large, this collection is nearly perfect in its way. As an illustration of the anatomy of the vertebrates, it is unequalled in America. It represents the greater part of Prof. Wyman's labors, and will be a perpetual monument to him. On some future occasion, we may give some account of its chief features.

The casts of the statues of the Warrior of Agacius and of the Venus of Milo are left to Harvard College, and the specimens of morbid anatomy and monstrosity are left to the Boston Society for Medical Improvement. It will be remembered that the collection of this Society is to be given to the Medical School as soon as the new building is finished. The Society of Natural History is to be congratulated on the rich accession it has received from its late president, and the scientific community is to be congratulated that this treasure will be preserved where it will be most available.

THE present number of the *Chicago Journal of Nervous and Mental Disease* completes the first volume of this excellent quarterly. Barely one half of the leading articles are original, but these are very creditable, and the translations are well done. The reviews deserve special mention; they are clear, honest and readable. We go rather out of our way to say a good word for this journal, as we are pleased that one of this nature should flourish in America, and particularly in the West. We wish it a continued success.

SCHNEIDER ON EXTIRPATION OF THE SCAPULA.—Dr. R. Schneider, of Königsberg, reports a case (*Berliner Klinische Wochenschrift*, No. 31, 1874) in which the left scapula was extirpated on account of a sarcomatous tumor. The subject was a weakly boy, aged six and a half years. The tumor had been growing for five months, and during the last three months had increased rapidly in size. The whole of the left scapular region was finally occupied by a firm, elastic, painless growth, closely connected with the bone, but not involving the integument. This growth was of the size of the fist, and internally terminated at the base of the scapula, but passed beyond the external and superior margins of the bone. It occupied the whole of the outer surface of the bone, filling the supra-spinous and infra-spinous fossæ, and sent out a nodulated outgrowth into the axilla. The action of the left arm was much impeded. No swelling of the corresponding lymph-glands could be made out. On account of this, and of the slow growth, and the yielding consistence of the tumor, Dr. Schneider regarded the affection as sarcoma of the scapula. On December 3, 1873, the whole of the diseased bone was excised. The first incision was made along the base of the scapula; the second was commenced at the acromion and carried horizontally along the upper margin of the tumor to the commencement of the first incision. A flap was thus formed, the free angle of which corresponded to the upper and inner angle of the scapula. The portion of the tumor which projected beyond the upper margin of the bone was then exposed. The muscles attached to the inner and outer margins of the scapula were next divided. As the acromion, the neck of the scapula and the acromial part of the

clavicle had become involved in the tumor, it was found necessary both to open the shoulder-joint and to remove a portion of the clavicle. The deltoid muscle was cut through at its upper part, and the clavicle exposed and divided at an apparently healthy part. The articular capsule was now exposed, and the long tendon of the biceps muscle and the tendons of the muscles inserted into the great and small tuberosities, were cut through. The articular capsule was then completely separated from the margin of the glenoid cavity. The axillary portion of the tumor was dissected out with great care, in order to avoid wounding any of the large vessels of this region. The tendons of the muscles attached to the coracoid process having next been dissected, the separation of the tumor from the side of the thorax was easily effected. The supra-spinatus, infra-spinatus and sub-scapularis muscles were wholly removed. During the operation, the subclavian artery was compressed against the first rib. A spray of carbolic-acid solution was played upon the wound during the operation. The vessels were closed by carbolized catgut, and the dressings were strictly according to Lister's plan. The operation lasted for little more than half an hour, and the hæmorrhage was very slight; consequently there was no subsequent collapse. The boy did well from the sixth day after the operation, and on January 26, 1874, was regarded as cured. At this date, the parts about the seat of the operation were quite sound; the left shoulder was somewhat more depressed and less rounded than the right. The outer extremity of the clavicle, on which was fixed the head of the humerus, was directed backwards. The left arm was as large as the right. The left arm could not be abducted to any great extent, though by passive movement it could be easily elevated to the horizontal position. The humerus could hardly be moved, either forwards or backwards. The hand could be raised to the mouth and occiput through the free movement of the forearm.

On subsequent microscopical examination, the tumor presented the structure of a lymph or granulation sarcoma, which had undoubtedly been developed between the periosteum and the surface of the bone. The main elements were small ovoid cells filled with glistening protoplasm. The basis substance in the intra-periosteal portions of the growth was very delicate and soft, and on the extra-periosteal portions tough and fibrillated. In the course of a few weeks after the operation, the disease returned in the left shoulder, near the cicatrix, and at the same time a diffuse, doughy and painful tumor appeared at the upper part of the right tibia. These growths increased rapidly in size, and the patient's general health became much impaired. On April 20th he succumbed, death having been preceded for some weeks by pain in the back, great prostration and paralysis of the bladder and lower limbs. At the *post-mortem* examination, secondary growths were found in the lungs, on the anterior surfaces of the fourth and sixth dorsal vertebrae, and on the posterior surface of the sixth dorsal vertebra. The deposit in the last-mentioned situation had considerably contracted the calibre of the vertebral canal.

Dr. Schneider states that this is the nineteenth reported case of excision of the scapula, with preservation of the upper limb. The whole scapula, with the exception of the coracoid process, was first removed by von Langenbeck, in 1850, and the whole bone, together with a portion of the clavicle, was extirpated by the same surgeon in 1855. The scapula has been removed in two cases on account of caries, once on account of some obscure tumor, three times on account of enchondroma, once on account of an osteo-fibroid growth, and in thirteen cases on account of sarcoma or carcinoma. Of the nineteen subjects of these operations, only one died from the immediate effects. Two patients died from pyæmia, and one in consequence of bronchitis. In one case, the disease returned in the wound made in the operation, and the patient speedily died. The remaining patients recovered from the effects of the operation, and were, at least, temporarily cured. Dr. Schneider holds that the risks are smaller with total than with partial removal of the scapula. The hæmorrhage during the former operation is not very formidable, if the subclavian artery be compressed.—*London Medical Record.*

THE USE OF THE TOW PESSARY. By EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital, &c.—At a time when we are constantly introduced to new instruments of every description, all professing to be improvements upon those before employed (but which do not always come up to the mark of usefulness claimed for them by their inventors), it may be a relief to fall back for a change upon something of a more *simple* character. I think surgeons will, as a rule, admit that the more simple the construction of their instruments the more satisfactory is the use of them, provided only they prove equally effective, although this feeling has been sometimes carried to too great an extent, unless in very practised hands. For instance, the late Mr. Martineau was in the habit of using one lithotomy staff for persons of almost every age, and one gorget for almost all; and these he carried to the hospital in his coat-pocket—a strange contrast to the variety and multiplicity of the instruments now provided for the operation, and borne in handsome, mahogany cases.

But the instrument to which I specially allude in this communication is the pessary, of which there is now such an infinite variety; perhaps proving that, where so many different ones are contrived, many of them have been found of little value. My experience of them certainly leads me to the conclusion that but few of them are to be depended upon, and that some are quite useless. The case to which I am about to refer was that of a patient of more than middle age, who applied for relief at the Norfolk and Norwich Hospital, and was under the care of Mr. Crosse. She had had complete prolapsus for a long time, and no kind of pessary was found to be of any use. I chanced one day to be in the ward when Mr. Crosse examined the patient, and he asked me whether I thought an operation he contemplated would be likely to afford relief. The uterus was quite extruded, and, when he returned it into the vagina, the folds of the vagina were so loose and redundant that he proposed removing a considerable portion on each side, in the hope that, in healing, it might afford effectual support to the uterus and prevent its further extrusion. The matter was left open for further consideration; but I suggested meanwhile, that he should reduce the uterus, and plug the vagina with some tow, which was lying at hand, covered at the top by, and partially enclosed in, a piece of linen, greased on the outside to facilitate its introduction. This was effectually done, and, although half a roll of tow was used, it produced no inconvenience, either to the bladder or the bowel. It maintained the uterus in its place, and was renewed as often as appeared necessary for cleanliness. Soon the patient was enabled to renew it herself; and, after a week or two, she was discharged from the hospital, and advised to continue the same plan. I heard from her some time afterwards, and ascertained that the uterus never came down now, and that she could even dispense with the tow pessary, except when over the wash-tub, at which times she *thought it prudent* to apply it. She had not been so well for years.

This was a remarkable case; the worst, in extent of prolapsus, I have ever seen, and, certainly, not amenable to any treatment by pessaries, as far as my experience guides me; indeed, almost every kind had been tried and failed. On reflecting upon it, I am inclined to the belief that a tow pessary might, in many cases, be used with success, and it has the merit of being incapable of doing injury to the parts with which it is in contact. It is easy of introduction; indeed, this patient soon learned to introduce it for herself. Being a compressible material, the tow would not keep the vaginal walls constantly on the stretch, like a solid body, but would rather allow them to contract gradually upon it, and thus prevent their losing their reliant power. The linen with which it is covered at the top and sides affords an easy means of withdrawing the tow for purposes of cleanliness, and the pressure which the tow exercises on the soft parts is equable, and so distributed that it causes no pain in any part with which it is in contact. Moreover, it is not liable to be displaced by any pressure or weight exerted upon it by the uterus itself, or by muscular efforts in defaecation, for it clings, as it were, to the walls of the vagina; and this, combined with the resistance of the sphincter, effectually prevents it from being displaced. I am very sanguine in the opinion

that a *tow pessary* will be found useful in cases where pessaries are usually employed; but, at all events, I feel sure it will be found a most serviceable and effective means of removing the difficulties and annoyances of a *complete prolapsus of the uterus*. If others are induced to try it, I hope they will record their experience in the journal.—*British Medical Journal*.

ON A DISEASE OF CARPENTERS. By PETER EADE, M.D. *British Medical Journal*, Oct. 17, 1874.—The author states it to be well known that undue or prolonged exertion of any part of the body is apt to be followed by an exhausted or more or less paralytic condition of the overworked part, and that this condition may vary from simple weakness to more or less complete loss of function of the affected part. The effect of such an exhausting or paralyzing cause may be produced, not alone at the special part itself, or even at the centre-point of implantation of the nerves passing from it, but also, especially by reflected action, at other points either near to, or at a distance from, the affected centre.

Carpenters, in much of their work, use their hands and arms pretty continuously in a monotonous way, as in planing and hand-sawing, so that the same set or sets of muscles are often called into action continuously. Ordinarily, they do not suffer from their peculiar work, so that special circumstances or conditions seem to be necessary to induce evil results.

Dr. Eade reports the case of a carpenter who first came under his observation in March, 1870. He had usually enjoyed good health till October, 1869, when he began to complain of numbness and pain of the fingers and hands on both sides, extending as high as the wrists; not long after this, shortness of breath, made worse by exertion, came on, and this was soon followed by a slight cough and expectoration, the latter once or twice tinged with blood. He felt generally weak, and was unsteady about the knees in standing or walking. At the time of his admission to the hospital, the numbness and aching of the hands and the shortness of breath were his principal symptoms. He had still some trifling cough and spitting, and, though his body was well nourished, he was evidently weak in all his limbs, and had a fidgety, nervous manner. The respiratory murmur was found to be weaker on the right than on the left side of the chest; but no other abnormality of the lungs, and none of the heart, could be discovered. There was no disease of any other viscus.

Two other cases, one of a carpenter and the other of a laborer who had overworked his upper extremities by prolonged digging, were brought to the author's notice. All three presented similar and closely allied symptoms, one of the most prominent of these being the free secretion of whitish mucus, apparently from the mouth and throat and the air-tubes, but without much cough, and without any distinct chest disease. Other symptoms have been, shortness of breath; vague pains and discomforts in and across the chest, either limited to this part or extending upwards to the neck, face and head; sensations of dorsal chilliness or tremor, but scarcely any distinct spinal tenderness, and in all a peculiar nervousness and fidgetiness of manner.

A fourth case is also reported, of a man who had strained his arms severely in throwing and barrowing earth, the effect of which was to cause much numbness and aching weakness in his arms.

Although of the four cases reported only two were carpenters, yet the first and most typical case having occurred in a carpenter, the writer thought it best not to alter the title to his paper, believing that the term not inaptly expresses the nature of the disorder from which all suffered. Its exact nature is probably irritation, followed by exhaustion, of those portions of the spinal cord from which the nerves of the brachial plexus arise; in other words, it is an crethism of this plexus and of its related cervical ganglia, with reflexed disturbed action of other parts whose nerves are in connection with these cervico-dorsal nerves.

As to treatment—nothing except prolonged rest has seemed to be of value.

Medical Miscellany.

MORE than one-hundred thousand dollars has already been raised for the new building for the Harvard Medical School.

IN olden times, they had "Stone-cutters" and "Rupture-curers" by appointment in the London hospitals, a grade inferior to that of surgeon.

SPEAKING of Medical Schools, the *Philadelphia Medical Times* says: "We believe Harvard has the only rapidly-growing class on the continent, and it apparently soon will have, if it has not, even now, the *best-paying* medical class in the United States.

ON Friday afternoon, the 30th ult., Mr. J. Toole, the comedian, assisted by the English members of his company, generously gave an entertainment at the Insane Department of the Philadelphia Hospital, for the amusement of the unfortunate inmates and their attendants.—*Medical and Surgical Reporter*.

SEVERAL rather severe losses of cattle have lately been sustained by occupiers of low, marshy, undrained lands in different parts of Ireland, from vegetable poisoning. One outbreak of the kind has recently been successfully investigated in County Galway. It was distinctly proved that the cause of death was the poisonous effects of *Colchicum autumnale*, a plant peculiar to the lands above described. Twenty-three animals, belonging to six or seven small tenants, have succumbed.—*Medical Press and Circular*.

THE ODORLESS METHOD of emptying vaults has been in successful operation in this city for several weeks, and all the advantages experienced from its application in other cities have been fully realized here. Vaults are emptied in open day without the slightest offence. The public is indebted, primarily, to the Board of Health, for urging this excellent innovation upon the attention of the Committee on Health.

MOSQUITO BITES.—The appearance of the mosquito in England has occasioned some excitement during the past summer, and will probably occasion more next year. The result of our experience, which we publish for the benefit of our trans-Atlantic friends, is that the itching may be relieved by rubbing olive oil over the bite, and repeating, if necessary. The relief thus obtained generally lasts several hours after each application of the oil. Scratching the bites doubles or trebles the suffering.

THE ease with which powerful drugs are obtained without medical prescriptions, even in foreign cities under stringent laws, was shown not long since by a singular practice among the coachmen in Bordeaux. They were proved to be in the habit of taming down and rendering more easy to drive the spirited horses placed under their care, by morning doses of chloral. The animals became sleepy, more gentle, and much easier to manage. This suited the coachmen better than it did the masters. It was some time before the veterinary surgeons could discover the trick.—*Medical Times and Gazette*.

FEMALE PHYSICIANS.—We quote from an article on this subject in the *Lancet* of Oct. 17th: "If we judge aright, the sentiment of English men and of English matrons, and, what is more, of the great body of the general practitioners in the country, is decidedly opposed to the institution of medical women. There are some crotchety persons, and always will be a few, who will advocate the claims of medical women, and who will lend them every encouragement, so that they may be at variance with their fellows, if for no other reason. Presumably, the chief object in educating women in all the details of medical science and art is to qualify them for the practice of obstetrics and gynaecology, and of diseases of children. But, paradoxical as it may appear, these may prove to be the very departments of practice for which women are, morally, physiologically and physically, least fitted."

CREMATION.—Lady Dilke's body was burnt, as she had directed, in an oven at Dresden, Oct. 9th, in presence of distinguished physicians and officials. At the end of ten minutes, the muscular parts were generally broken up; in twenty, the skeleton was exposed, and its destruction began; in thirty minutes, the soft parts were generally consumed; in sixty, the bones, also, were greatly reduced. At the end of seventy-five minutes, the ashes, weighing about six pounds, were collected and put into an urn.—*British Medical Journal*.

DESERTS AS HEALTH RESORTS.—At a recent meeting of the Munich Academy of Science, Prof. Zittel read a paper, detailing the results of observations made by him with regard to the air of the Lybian desert during the months of January, February, March and April, 1874, tending to prove that this desert contains a very much larger amount of ozone than that of the oases, or the Nile valley. The belief that the desert air is beneficial to invalids, especially those suffering from pulmonary complaints, is of ancient origin, and, in accordance with this idea, the Khan has recently decided to repair to Helnan, in the so-called Eastern, or Arabian, desert of Egypt.—*Allgem. Med. Cent. Zeitung*, Sept. 30, 1874.

In Sweden, there are seventy-nine hospitals, containing 4,687 beds, receiving an average of from 30,000 to 32,000 patients. The expenses of these hospitals amount to about £40,000 per annum. There are nine lunatic asylums, containing 1,210 beds. Stockholm has seven hospitals, of which the most important is the Clinical Hospital, containing 300 beds. The wards of this institution are small, low, badly lighted and poorly ventilated.

In Norway, they employ tarred oakum for dressing wounds, the bandages and other portions of the dressing being impregnated with acetate of alumina. At Christiania, in the Medical wards, it is the custom to cause patients affected with acute pulmonary troubles to respire air charged with aqueous vapor. The bed is entirely covered with a moderately thick cloth, in which are two apertures for the renewal of air. A water vaporizing apparatus is placed at the foot of the bed, to the level of which the vapor is conducted by a tube. This mode of medication is tolerably successful, particularly in children's cases.—*The London Medical Record*.

NOTES AND QUERIES.

THE JOURNAL of November 5th has an extract from the *Medical Weekly*, giving an account of a case of poisoning by bromo-chloralum. Will some one inform me what is bromo-chloralum? I should like to know.

MORTALITY IN MASSACHUSETTS.—Deaths in thirteen Cities and Towns for the week ending October 31, 1874.

Boston, 130; Worcester, 20; Lowell, 20; Milford, 4; Salem, 11; Springfield, 7; Lynn, 9; Gloucester, 2; Fitchburg, 2; Taunton, 1; Newburyport, 3; Fall River, 17; Haverhill, 5. Total, 231.

Prevalent Diseases.—Consumption, 42; pneumonia, 18; typhoid fever, 8; cholera infantum, 8; scarlet fever, 8; diphtheria, 6; croup, 5.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 7, 129. Males, 64; females, 65. Accident, 2; apoplexy, 6; bronchitis, 6; inflammation of the brain, 1; disease of the brain, 5; cerebro-spinal meningitis, 2; cholera infantum, 7; cholera morbus, 1; consumption, 18; croup, 1; debility, 2; diarrhoea, 2; dropsy of the brain, 4; dyspepsia, 1; dysentery, 1; diphtheria, 1; exhaustion, 3; erysipelas, 1; scarlet fever, 2; typhoid fever, 5; gangrene, 1; disease of the heart, 8; homicide, 1; intemperance, 1; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 8; marasmus, 8; measles, 1; old age, 4; paralysis, 3; pleurisy, 1; premature birth, 2; peritonitis, 1; puerperal disease, 3; rheumatism, 1; suicide, 2; "sequelæ of chickenpox," 1; syphilis, 1; tumor, 1; tabes mesenterica, 1; unknown, 2.

Under 5 years of age, 41; between 5 and 20 years, 9; between 20 and 40 years, 31; between 40 and 60 years, 23; over 60 years, 25. Born in the United States, 80; Ireland, 34; other places, 15.

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Original Communications.

PROFESSIONAL REMINISCENCES.

By J. L. CHANDLER, M.D., of St. Albans, Vt.

Read before the Vermont Medical Society, Oct. 15, 1874.

MR. PRESIDENT AND GENTLEMEN,—I am grateful for the courtesy so often extended to me, an antiquated member of your profession, where it always gives me pleasure to be tolerated. Participation in your discussions has become impracticable. I can merely *gropé* in the twilight of age and infirmity, and must be satisfied to be an interested listener. I will only detain you from more profitable exercises but a short time with a few professional recollections.

More than half a century since, I always encountered at your meetings several of the venerable pioneers of the profession in Vermont, whose earnest bearing stimulated my young ambition to efforts for the attainment of all attainable knowledge in medicine, though the efforts suffered a terrible failure of success. Medical association, intercourse, fellowship, is not merely a recreation—a refreshment—but is indispensable for the attainment of a high grade of professional aptitude. The foundation for this must be laid in preliminary, scientific study, and medical colleges; but its completion can only be effected by kindly personal intercourse. I well remember, during the early stage of my medical pupilage, the discussion of plans for the formation of a Vermont State Medical Society, by such men as Ezekiel Porter, of Rutland, John Pomeroy, of Burlington, Benjamin Chandler, of St. Albans (my honored father), and their associates, and little did I think then—more than sixty years ago—of being here at this late date, to make honorable mention of its founders.

I became a member of this Society soon after its formation, and am prouder of the honor of having once been called to preside over its deliberations, than of any other distinction I ever attained.

That it has done all for the profession, or for the people, that might have been expected, may not be claimed; but that it has constituted one efficient element in improving and elevating the profession in Vermont during its existence, my own observations, for nearly sixty years, make it to myself very obvious. It is the germ from which many minor associations have emanated in the State, diffusing intelligence and genial elements through the profession that, forty years ago, were almost unknown, and hardly deemed attainable in the profession. “Doctors will disagree” had become a proverb.

To the younger members, professional association is absolutely a *sine quâ non*. Attrition of mind with mind, suggestion with inquiry, *ipse dixit* with demands for demonstration, are the methods by which

we keep off rust, and improve in our ready discriminations in the varying aspects of disease, and in our adaptations of remedies. And let me beg your forbearance, gentlemen, while I urge on the younger members of your Society the paramount importance of that department denominated diagnosis. Yet let them not be too much depressed if, in calling their seniors in consultation, they sometimes find themselves convicted of false diagnosis.

I have seen instances of the same blunder in reverend seniors (to say nothing of my own unnumbered mistakes). Many years since, an intelligent medical friend, residing in a distant part of the State, had a patient, a young lady, suffering from derangement of the assimilating functions, which, for a long time, had resisted all treatment for relief. An eminent member of the profession, a professor in more than one medical college, was called in consultation, who pronounced it a case of valvular disease of the heart, and hastily predicted that the patient, at the utmost, could not survive a year. My friend, the attending physician, yielded his own opinion, and the patient was given over to her doom. Having occasion, subsequently, to visit the place of my friend's residence, he courteously invited me to accompany him in a visit to this patient, without giving me any intimation of the facts as above related. I examined the patient as if I had been called in consultation, and gravely pronounced the case *anæmia*, from derangement of the digestive organs, and want of due assimilation, and thought she would probably recover, *inferring* that my medical friend's opinion was the same. He expressed his regret that I had given my opinion so hastily (which, I think, had surprised him), "especially in the hearing of the patient, lest it should excite false hopes." But no such result was likely to follow, for the beautiful patient exhibited strong resentment, that I should presume to question the capacity of the venerated Dr. Mussey to judge correctly of her case, and its final result, evidently assuming that I had been informed of Dr. Mussey's opinion. It is no more than just to the memory of that distinguished man (as the result will show) to say that this occurred only a few weeks after the first introduction of the *stethoscope* into the United States, and I think it not unlikely it may have been the first opportunity presented him for testing its reliability, as a means of detecting the seat and character of internal disease. Is it a wonderful thing that the most adroit man in the profession, even, should have failed of a true diagnosis, under like circumstances?

The young lady had the aspect, very obviously, of anæmic patients, had the delicate organization, which often characterizes females for a period before and after puberty, favoring the development of romantic absurdities. She evidently delighted in the idea of her own frailty, and enjoyed the admiration of her sympathizing friends. I had a clear recollection of my honored father's method, and management of such patients. I was permitted to reëxamine the case, but could find no evidence of valvular disease, and, notwithstanding my sincere reverence for Dr. Mussey, I adhered to my own opinion, for which my medical friend evidently pitied me, and the beautiful patient hated me. She lived on, the same lovely, interesting, suffering invalid, one year, ten years, twenty years—became a maiden lady at last, and got *married*, and, a long time after, died, whether of valvular disease of the heart, I never learned.

To counterpoise the self-conceit which may have prompted the above story, and as penance for having made free with an oversight of Dr. Mussey, whose shoe-latchet I was unworthy to unloose, please bear with me, while I relate *one* of my own humiliating blunders.

In early professional life, I was called in consultation in a case of strangulated inguinal hernia—the attending physician, also, being young in experience—and found the scrotum enormously distended. All attempts at reduction had failed for some four days, and my own attempts to accomplish the feat were equally futile. I had never even *seen* the operation which is the *dernier ressort* in such cases, and my medical friend was equally at fault.

The patient was old and feeble, and evidently losing ground rapidly. We were at too great distance from any competent surgeon, who could arrive seasonably. We had but a misty recollection of the anatomical relations of the region, and lacked even a decent case of pocket instruments. My friend positively declined the attempt, and I must look on and see the patient die, or make the attempt myself. The distention of the scrotum was lessened one-half at the first incision, which was a rash one, considering that I knew little what I was about, and there was a sudden gush of serum, seemingly a pint, which proved, I suppose, that the vaginal coat of the testes was distended with fluid, thus complicating the case. I made a bloody business of it, and after much tumult succeeded in returning the intestine; and, though I noticed some dubious discolorations on its outer coat, I knew of no better expedient than to hide them in the abdomen. I had controlled the hæmorrhage by ligating several arteries, most of which, I suspect, were needlessly severed, and was preparing to close and dress the wound, when I discovered a very dark spot on the investing membrane of the testis, perhaps three-fourths of an inch in diameter. Leaving the patient in the care of other attendants, I took my friend out of ear-shot and said to him, "Tell me, is that incipient mortification? It's a matter of life or death!" His reply was, "I don't know. Do as you think best, and I'll maintain you were right." I removed the testis, and the patient lived on, many years.

I've told you this prosy story, gentlemen, in part, also, for the purpose of introducing you to the late venerable Dr. Mott, of New York, who, you will perceive, failed to admire me, either for my adroitness in surgery, or for any discrimination in diagnosis. For several months I had been growing a little sensitive over the question whether it had been needful thus to maim the good old gentleman's manhood. It was my habit in those days to visit New York occasionally, and Dr. Delafield, having once before done me a professional kindness, repeated the favor by accompanying me to Dr. Mott's library, where we found him disengaged, and said he would leave me for half an hour in Dr. Mott's hands. I don't think I had ever seen a library before. I had felt some complacency in my own little collection of medical books, but could have stored them in a bushel basket. The dimensions of the room were some twenty by thirty feet, probably more on the floor, and the walls very high and, with the exception of needful spaces for doors and windows, entirely occupied with garnished shelves from bottom to top, and filled with books. The doctor was sitting in an easy-chair, by the side of a table, with a volume in his hand, which he courteously laid aside as we were ushered in; he exhibited a tidiness

and purity of costume and person which, I think, could not have been displayed by an ordinary man, without reminding us of the shallow-pated pigmies we sometimes encounter in the guise of birds of paradise. But on Dr. Mott, the easy grace of his bearing made it seem the mere outgrowth of his manhood, and he was obviously unconscious of his clothes. His dress consisted of neat but plain slippers, white silk stockings, light buff small clothes, festooned at the knee with small, plain gold buckles, light buff coat, white vest, and white satin stock on the neck. He wore a diamond ring on his finger, and as I grasped his soft hand in my own rough paw, I thought I felt the vibration of a *shudder* creeping through his entire frame. He was very courteous, and evidently strove to avoid any appearance of condescension towards me, though my own sensations reminded me of the country mouse, who visited the city lion. It was marvellous—the care with which he kept his claws retracted, as he took the mouse in hand for a little examination; and, really, one might have thought, to have heard him, that he sometimes found me a very clever *mouse*. So, I soon found myself at ease and at home, and quietly gave up the attempt to personate a lion.

After other matters of inquiry, in regard to medical men in Vermont, two or three of whom he spoke of in terms of interest and respect, he began to question me a little in regard to my own practice, and whether I was fond of surgery, and then startled me with the inquiry whether I had had much experience in strangulated hernia. I think I was not sorry, for I found myself in a mood to make a clean breast of it, and to tell him the whole unvarnished truth in regard to the case and the operation, without any covert contrivances for concealing my own awkwardness or ignorance.

He was very considerate—interrupted me with no inquiries or comments during the relation, but, in his appearance, reminded me of a patient in the hands of a dentist, without the alleviation of chloroform.

After I got through, he inquired—"and did he survive all this?" I replied, "He yet lives, and is a hearty, hale old man." With a sigh of relief, his only utterance was, "Fortunate!" "And now, doctor," said I, "will you do me the favor to tell me frankly whether I did right, under the circumstances, in removing the testis?" He looked at me for a minute, inquiringly, as if to consider whether I could bear the truth, and said, "Well, doctor, under the very peculiar circumstances (as much as to say, I suppose, as the patient was in the hands of a brace of green tyros, who did not know the difference between gangrene and simple ecchymosis), perhaps we might say you did right; but there was not the least occasion in the world to make a gelding of your unfortunate patient."

Perhaps a little restitution is due the gentler sex for portraying an instance of their sentimental nonsense, from which they may fancy we deem ourselves exempt. Let me give you a like specimen exhibited in verdant manhood, probably at about the same period of development. During my early pupilage, I was fast becoming a sentimental exquisite myself; reading myself well up in all the pathological abnormalities of the heart, till I honestly believed they had me in their clutches, and I had begun to admire myself as an interesting pathological specimen. On one occasion, after a late and hearty supper, I went early to bed, and, at midnight, the abnormalities had me fast. I

believed I could neither breathe, nor feel pulsation at the wrist. A boy was within call in another chamber, whom I sent in haste to my father below, with a message that I was dying. I felt a little mortified that he did not hurry up; but he came at last, with a lamp in his hand, and, looking me sternly in the face, said, "What now?" I looked up beseechingly, and faintly and meekly whispered, "My heart!" He paused a moment as if for devising an appropriate remedy, and then gave it, in no very gentle tones, saying, "My son, if you ever call me up again to see you die, I'll recuperate your heart with a horse-whip!" and left me to die alone, and I was greatly chagrined by failure to accomplish the feat.

Progress in Medicine.

REPORT ON OTOTOLOGY.

By J. ORNE GREEN, M.D.

Pneumatocele Cranii, caused by Rupture of the Mastoid Cells.—Prof. Wernher, of Giessen (*Zeitschrift für Chirurgie*, vol. iii.), describes a case of pneumatocele cranii from the spontaneous rupture of the cells of the mastoid process. The patient, a young woman, aged twenty, free from any disease of the ear, reported that, four years before, after violent sneezing, a tumor, as large as a pigeon's egg, unaccompanied by pain, appeared over the upper part of the mastoid process. At first, under pressure, it disappeared, but returned immediately with expiration; it gradually enlarged, and, at the time of examination, the right half of the scalp was taken up by an enormous swelling of three lobules, which extended beyond the vertex, and backwards to the occipital bone; at the most prominent points, the skin was raised two inches from the bone. The tumor was painless, the skin over it normal; the tone, on percussion, sonorous; but auscultation, under pressure, gave a blowing sound, and not emphysematous crepitus; from sneezing, or Valsalva's inflation, it increased slowly; under compression, it diminished slightly, and the patient felt as if air passed into the pharynx, and some difficulty of respiration was caused. A three-cornered opening could be felt in the bone of the mastoid, into which the end of the finger could be passed. The ear appeared normal, but the hearing was a little dull on that side.

An elastic bandage over the head emptied the air from the tumor, and was worn for twelve days, in the hope that adhesion of the skin to the bone would take place, but without success; a small portion of the tumor was then pressed between the fingers, and into this a small quantity of tincture of iodine was injected from a subcutaneous syringe; four similar injections were afterwards made in other parts of the tumor, and the adhesive inflammation, resulting from these, attached the skin firmly to the bone, and the patient was cured. Very slight local irritation followed the injections.

Wernher closes his article with a review of eleven cases of a similar disease, already described.

Traumatic Otorrhagia.—Dr. Le Bail, in a monograph on this subject, draws the following conclusions:—

1. That a discharge of blood from the ear, after an injury of the

head, is characteristic of no one disease, and is, in itself, absolutely, of no diagnostic value.

2. Such a discharge is common to several lesions of the ear, arising from different causes, viz.:—

a. Wounds of the external auditory canal, which frequently result from injury to the face or lower jaw; in these cases, the history of the injury, the condition of the inferior maxillary articulation, the condition of the membrana tympani and the tympanic cavity serve to guide the surgeon to an accurate diagnosis.

b. Injuries of the membrana tympani and the mucous membrane of the tympanum, which frequently accompany injuries of the head, and may be the result of either direct or indirect violence; in these cases, the progress of the symptoms enables us to decide on the seat of injury. An injury of the drum-membrane or tympanum does not cause the serious train of symptoms which a fracture of the petrous bone does.

c. Fractures of the petrous bone, in which the duration, intermittence and repetition of the bleeding are of great diagnostic value in distinguishing the injury from a simple laceration of the middle ear, for in the latter case the bleeding soon ceases, and does not return.

In connection with the subject of bleeding from the ear, the observations and conclusions of Hagen (*Praktische Beiträge zur Ohrenheilkunde*, 1866) on the pathognomonic value of serous discharge from the external ear, after injuries to the head, are of interest. The generally-received opinion that the serous discharge from the ear, after an injury to the head, always comes from the subarachnoidal cavity, and is, in fact, the cerebro-spinal fluid, and that, therefore, such a discharge is pathognomonic of a fracture of the base of the skull, he denies, from the fact that several cases have been reported, in which a very copious discharge of serous fluid from the ear, followed injury of the head, and yet *post-mortem* examination showed that no fracture of the petrous bone had taken place. One case showed, six years after the injury, no trace of a fracture of the skull, but only a cicatrix on the membrana tympani, dislocation of the ossicula and pseudo-membranes on the secondary foramen; in another case, in which, as the result of a fall on the pavement and a consequent blow on the side of the face, a watery discharge began immediately from the ear, and continued, at the rate of 7 to 12 grains per minute, for three days, perfect recovery followed; but three years afterwards an autopsy showed no fracture of the skull, and only an ununited fracture of the base of the stapes, so that the tympanum and the vestibule were in communication.

Hagen concludes that, although in general a serous discharge from the ear is the result of a fracture of the base of the skull, it is not necessarily so; that in cases in which bleeding and a serous discharge from the ear result from injury, the diagnosis must be doubtful, unless the chemical constituents of the secretion are different from those of the cerebro-spinal fluid; in that case, we can exclude a fracture of the petrous bone. He holds, with Prescott Hewett, that a serous discharge may be secreted from the mucous membrane of the tympanum without a fracture of the petrous bone.

A New Method of Removing Foreign Bodies from the Ear.—In addition to the methods of removing foreign bodies from the ear, already described, viz., the syringe, forceps, wire loop, hook, crushing instru-

ments, attachment of a thread to the foreign body by glue, shrivelling of the mass, when possible, by astringent instillations, Voltolini (*Monatschrift für Ohrenheilkunde*, No. 8) suggests burning the mass into fragments by means of the galvano-caustic, and narrates a case in which he was able to do this with perfect success. The patient had been ordered to use powdered alum in the ear to check an otorrhœa; some months afterwards, that ear was found to be filled with a hard, stony mass, which could not be removed by the forceps or syringe. By means of the galvano-caustic, however, Voltolini was enabled to reduce it to fragments, and thus to free the ear entirely. The possibility of this procedure is worth remembering in those cases which occasionally tax the ingenuity of the surgeon to the utmost.

(To be concluded.)

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION. W. L. RICHARDSON, M.D., SEC.

Two Cases of Pneumonia, in which the Characteristic Symptoms of Cough and Expectorations were Absent.—Dr. S. W. LANGMAID reported the cases:—

CASE I.—Mr. B., 48 years old, a master builder, residing at south end of Boston, first visited July 6, 1872.

He says that, upon returning home yesterday afternoon, after a short drive into the country, he was seized with headache, and from being at first chilly became quickly feverish. The headache continued through the night. This morning, he vomited. Has now no nausea, but headache is constant. He reports the bowels rather constipated. He is in bed, lying on his back. Face somewhat flushed; skin hot; pulse 80. No eruption upon skin. Decided tenderness at pit of stomach. No cough, and no pain, except headache.

I supposed he was suffering from slight cold, with some digestive disorder.

Prescribed a purge of calomel and rhubarb.

The next day, Sunday, being spent out of town, I did not see him.

Monday, 8th.—Reports that the headache was relieved by the action of the cathartic, but that he still feels feverish, and much weaker than was to have been expected from so gentle a purge.

This weakness he thought might have been caused by a fracture of the radius, which had been more or less painful throughout its continuance, the splints having been removed three days before his present seizure. He has no cough nor pain, but feels very much like lying in bed. Skin somewhat warmer than usual. Pulse 78.

Is told to remain in bed. Some fever drops are to be taken whenever needed.

9th.—Reports as yesterday, almost no change. Still some feverishness. Pulse 80, not very full.

For the first time, *respiration* is noticed to be somewhat hurried (how rapid, I failed to record). No cough, no pain, no expectoration. This was the fourth day. He was still somewhat feverish. The pulse was more rapid, and the respiration hurried.

There was evidently something more here than mere bilious disorder.

Upon examining the chest in front, I found nothing abnormal, but the first percussion stroke on the right back showed the situation of the disease. Dulness on percussion. Bronchial respiration, and increased vocal fremitus over a space corresponding to the lower lobe of the lung, with here and there slight crepitant râle, made it perfectly clear that I had a case of pneumonia to deal with. But I had never seen a case in which the consolidation had taken place without cough and some pain.

I need not go on with the particulars of recovery; but will only say that, from the beginning to the end of it, there was never anything like pneumonic expectoration; indeed, there was much less than the normal amount of mucus expectorated, and that never colored.

July 19th.—Thirteen days from the commencement of the disease, the patient was about his room, and my visits were discontinued.

CASE II., April 29, 1874.—Mr. R., 64 years old, a teacher, residing in a neighboring State, complains of headache, nausea and feverish feeling. Had chill day before yesterday. Has slight pain in region of liver. Bowels much and habitually constipated. Has had hæmorrhoids for years, and three years ago received advice from me for a moderate enlargement of the prostate gland.

Had, while a student, some acute trouble in right lung, and has considered that lung "weaker" than the other ever since. Within two years, has had two attacks of moderate jaundice.

Previous to present attack, has considered himself in good health.

Present condition.—In bed, upon back. Very tall, and thin in flesh; evidently not a robust man. Speech and facial expression show nervous temperament.

The skin is not discolored, only a want of transparency noticed. Complains of dull feeling in region of liver, and there is tenderness at præcordia. No enlargement of liver made out. Percussion and auscultation reveal nothing abnormal. No cough. Pulse 82; its rapidity out of proportion to amount of febrile disturbance, but accounted for by his statement that it is always fast. No disease of heart found.

The case appears to me to be one of bilious derangement, such as he was likely to suffer from, and such as he had had before. I remarked to his wife that I should not be surprised if he became jaundiced. Prescribed farinaceous diet, and a pill, containing a quarter of a minim of croton oil, with small amounts of jalap and colocynth. He has been taking eight grains of quinine daily, and will continue to do so.

30th.—Condition much as yesterday. Pill operated freely twice; did not cause exhaustion. Was restless last night. Complains of headache, and heavy feeling in region of liver. Slight, transient pain darting from region of liver towards right clavicle. Pulse 82. Region of liver carefully ausculted. Thorax, also, front and back. Nothing abnormal found. Urine dark colored.

Was given a fever mixture, and was kept on farinaceous diet.

May 1st.—Was restless all night. Condition this morning about as yesterday, except that skin and conjunctivæ are decidedly yellow. Urine contains bile.

Four leeches to be applied to region of liver.

One aloes and myrrh pill ordered; to take eight grains of Dover's powder at night.

Saturday, May 2d.—The fourth of my visits. His condition at the

morning call was not changed. Has had no more pain or bad feeling in region of liver since the leeches were applied. The quinine is discontinued. Was asked to see him at night, as he seemed to have become weaker since morning. Found the pulse rapid and small, 110, occasionally intermitting. The quinine is resumed during the night.

3d.—This morning, the pulse is stronger and slower, although 90 to the minute.

Monday, May 4th.—Condition worse. The jaundice has deepened. He is weaker. Pulse 112. Temperature 100.2°. Was ordered beef-tea and champagne.

May 5th.—Consultation with Dr. Ellis. Patient's pulse very rapid, small, and intermitting every fourth or fifth beat. Respiration rapid. Patient was raised to sitting posture, and the first tap on the right back showed where the trouble was.

I think it right to say here that I had constantly in mind the liability to the complication of jaundice by pneumonia, and had, during the first two days, made careful examination of the thorax, and inquiries with respect to cough, and pain in the side. And, since the first case which has been related, I have never lost sight of the fact that pneumonia might exist without the presence of cough, pain or expectoration. In the absence of these, I must say that my attention was directed more especially to the region of the liver. It was found that at least two-thirds of the lung were involved. Concentrated beef-juice with milk punch were given, alternately, every half hour.

The next morning, the consolidation had extended to the upper portion of the lung. The patient's mind was confused. Temperature 101.2°. Pulse 120.

Thursday, 7th.—Crepitus was heard almost all over the back in places; and on Friday the crepitus was more general and the tubular breathing less decided. General condition better.

Convalescence was slow, and on the 29th of the month, thirty-one days from the date of my first visit, he was able to return to his home.

Crepitus was heard in isolated places up to within four days of his leaving town.

Had I time, and if it were consistent with the object of this report, I might enter more fully into the symptoms and treatment of these cases, particularly the last, which, contrary to the expectation of Dr. Ellis and myself, recovered. Enough has been said, however, to show that these were cases of pneumonia which went through the various stages of consolidation and resolution, with absorption of the material with which the lung was gorged, without pain, cough or any expectoration, which would call attention to the true seat of the malady, unless the occasional yellow sputum referred to below be considered pathognomonic.

In the last case, there was expectorated, once each day from the date of consultation, from one to three masses of extremely tenacious yellow matter, slightly discolored, but it was the patient's belief, and my own, that this came from the posterior nares and pharynx. Certainly, there was nothing like characteristic sputa.

I do not know but members of the Society have seen similar cases, but they are the only ones in my experience, and they have seemed worthy of being brought to your notice to-night.

Dr. Mixor said he had seen several cases like those Dr. Langmaid

had reported, in which there was neither cough nor expectoration. He thought that pneumonia was frequently overlooked from this very absence of symptoms which pointed to the lungs.

Dr. STEDMAN agreed with Dr. Minot, and cited the case of an old man who had pneumonia of the right lung unaccompanied by any pulmonary symptoms.

Dr. KNIGHT alluded to the case of an old lady who had been admitted, several years ago, to the City Hospital, for rheumatism. A careful examination showed pneumonia of one or both lungs, the exact condition he had forgotten, yet there had been no cough or expectoration prior to her entrance to the hospital.

Dr. BOWDITCH had seen a case in which there was complete solidification of the lung, and yet during the whole progress of the disease but a single characteristic sputum was observed.

Dr. C. P. PUTNAM alluded to the fact that, in pneumonia of young children, there was rarely any cough.

Dr. REYNOLDS alluded to the case of an old gentleman who had died of double pneumonia, and yet there had been only a slight cough and one characteristic sputum.

Dr. J. G. BLAKE said that these cases were by no means rare at the Home for Aged Men.

STATISTICS OF SCHOOL CHILDREN.—The classification of school children, according to the color of the eyes, hair and skin, has been made in the various public and private schools of Nuremberg, with the following interesting results. Of 9,819 children examined, 34 per cent. were found to have blue eyes, 31 per cent. grey, and 35 per cent. brown. The color of the hair was blond in 61 per cent., brown in 45 per cent., and black in 4 per cent. The color of the skin was white in 83 per cent. and brown in 17 per cent. The different combinations are represented by the appended figures.

Eyes.	Hair.	Skin.	Total No.	Jews.
Blue,	Brown,	White,	882	40
"	Blond,	"	2,244	29
"	Brown,	Brown,	226	16
Grey,	Blond,	White,	1,645	12
"	Brown,	"	879	30
"	"	Brown,	316	6
"	Black,	"	97	11
Brown,	Blond,	White,	1,122	16
"	Brown,	"	1,532	100
"	"	Brown,	586	24
"	Black,	"	290	32

—*Allgem. Med. Cent. Zeitung*, Sept. 30, 1874.

A SUPPLEMENTARY SPLEEN.—An interesting case of farcy was admitted into the Charing Cross Hospital last week, which terminated fatally, from exhaustion, in a few days. Only one abscess in the left axilla required opening. The *post-mortem* revealed the following: The body was well nourished generally; a few pustules in the upper part of the thorax; both lungs in the first stage of pneumonia; on the right side there were old pleuritic adhesions; the heart sound was empty; the lining of the aorta was covered with atheromatous patches; liver normal, also the spleen, and, strange to say, there was a supplementary spleen, the size of a walnut; the kidneys were congested, especially the right, which was larger than left, and weighed considerably more; the lymphatic system was generally in a state of turgescence, but there was no appearance of pus in any of the joints or internal organs.—*Medical Press and Circular*.

Bibliographical Notices.

Pharmacographia. A History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By FRIEDRICH A. FLUECKIGER, Ph.D., and DANIEL HANBURY, F.R.S. London: MacMillan & Co. 1874.

THE ground covered by this book is not precisely the same with any of the numerous works now in use upon materia medica and its allied branches. The authors say:—"It is, in fact, a record of personal researches on the principal drugs derived from the vegetable kingdom, together with such results of an important character as have been obtained by the numerous workers on materia medica in Europe and America." They leave out almost completely any direct reference to pharmacy proper; and therapeutics is merely touched, the chief use of each drug being mentioned, without any attempt to explain its action, except so far as a recognition of the actual or probable active principle may be thus considered. Although the book does not in the least supersede the use of works on chemistry and botany, and does not pretend to be an encyclopædia, its information upon these points, as well as on history, production, commerce and adulterations, is very full; and, what is quite as much to the point, is undoubtedly, from the well-known reputation of its authors, accurate and reliable, informing us whence the drugs actually in use are derived, rather than, like some older works, indicating whence they might be, or used to be, obtained. Any more extended statement of the contents could hardly be of much value to any but those who will want the book itself, and they are all who are interested in drugs aside from their therapeutic uses. But one gets a realizing sense of the enormous territory covered by organic chemistry, over which no one man can possibly travel and observe all the details, by examining the analyses of some single drugs; opium alone gives us sixteen alkaloids, with many artificial derivatives, to say nothing of acids and other less defined substances. Five alkaloids have been derived from different varieties of cinchona, in addition to the four (or six) better known.

The style is clear and concise, and the work is one which in every respect attains the object for which it was intended. Much of the material is necessarily common property with other works on pharmacy. Ebn Baithar and Galen cannot be rejuvenated, and the characters of alkaloids and oils are not changed by the re-arrangement, into new genera, of the plants which furnish them, but we find, nevertheless, an air of freshness and novelty about the book which is wanting in the usual compilations, and it represents a much larger amount of original work than they, both in actual discovery and in revision.

Clinical Lectures on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M.D., &c. Reported, edited, &c., with Notes, by T. M. B. CROSS, M.D. New York: D. Appleton & Co. 1874.

THIS volume, of 287 pages, is made up of a series of well-reported and interesting cases illustrative of many of the most important diseases of the nervous system, which, taken together with the remarks accompanying them, are well calculated to be of service, both to the students before whom the lectures were originally delivered, and to the general practitioner, the more so because the style of both writers is, in general, remarkably clear and pleasant.

The pathological anatomy of the various affections is entered into but little, an omission of some importance, although made in accordance with the plan of the work as stated in the preface; neither can it be said that the cases are critically discussed, as with the view of discovering new truths, but rather used to illustrate well-known types of disease.

The only further criticism we have to make is the one so often necessary,

that, even though it may be done to avoid creating confusion in the minds of hearers and readers, it is a mistake to refer to doubtful, or half, truths in terms which imply unqualified acceptance of them on the part of the writer.

Thus, repeated reference, without qualification, is made to the beneficial effect upon the circulation and nutrition of the brain, in cases of disease of that organ, of galvanization of the cervical sympathetic (pp. 7, 78, 208, 232), the cerebral vessels being made sometimes to dilate, sometimes to contract, in consequence of such treatment.

It could, however, hardly be denied that good observers are still at variance with each other as regards even the fact that benefit is ever to be obtained by this treatment, where the sympathetic nerve itself is not implicated in the disease.

Similar objections might be made to the statement (p. 162) that paralysis of the third cranial nerve in a case of locomotor ataxia should be referred to affection of the cilio-spinal centre of the spinal cord, and thereby of the sympathetic nerve.

Among the more particularly interesting parts of the work may be mentioned the chapter on convulsive (paroxysmal) tremor, an affection distinct from epilepsy, chorea and paralysis agitans, and first described by Dr. Hammond, in the *New York Medical Journal*, in 1867. But few cases have been observed, and its pathology is unknown.

A case of sclerosis of the posterior columns of the spinal cord is reported, in which the conduction of sensitive impressions was so much impaired that the astonishing interval of five minutes elapsed before the prick of a needle in the leg was felt.

A similar delay in the conduction of painful impressions in this disease has often been remarked, but no interval so great as this has, we think, been observed.

In cases of sciatica, Dr. Hammond has obtained excellent results from the deep injection of morphia (concentrated solution containing five grains to the ounce of water), even into the sheath of the nerve itself, which, after some experience, can be done, he says, with great accuracy, a thrilling sensation, running down the leg, being felt by the patient when the proper point has been reached. Sometimes a single, but oftener several, injections are necessary to complete the cure, and sometimes the relief is only temporary at best.

The popular prejudice against the continued use of ergot in large doses (a drachm of the fluid extract three times daily), is declared by Dr. Hammond to be entirely groundless, there being, in his opinion, no authentic case on record in which gangrene was thereby produced.

A useful and ingenious instrument for measuring the power of *continuous* muscular pressure with the hand is described, consisting of a dynamometer, to the index of which is attached a recording pen, which plays against a slide moved by clock-work, as in Marey's sphygmograph.

The absence of typographical errors and the excellence of the printing are very noticeable.

Nature Series. The Common Frog. By ST. GEORGE MIVART, F.R.S.
London: Macmillan & Co. 1874. Pp. 158.

THIS treatise, which has appeared piecemeal in *Nature*, is an excellent account of the natural history of the frog. It is not strictly an anatomical study. The physiologist will look in vain for much assistance in his researches. We may turn aside, for a moment, to regret that there is no thorough, dry, practical anatomy of the frog, in which the shape of the bones, the origin and insertion of the muscles, the distribution of vessels and nerves is given with the accuracy and absence of all embellishment with which they are treated in human anatomy. We do not forget the anatomy of the *rana pipiens*, by the late Prof. Wyman; nor that a work, such as we speak of, was commenced some years ago, in Germany, and ended prematurely with the skeleton; both of these are excellent, as far as they go, but a text-book on the subject is still a desideratum.

The present work has little to do with anatomical details, except inasmuch as they are of peculiar significance in showing the zoölogical position and relationship of the animal. It is a very favorable specimen of what is known as popular science. There is none of the twaddle by which writers try to make science attractive to those unable to appreciate it. To understand the book, only a slight knowledge of anatomy is requisite, but yet there are many facts which may be new to even advanced students. The author begins by asking "What is a frog?" and the book is devoted to answering the question. As soon as we get into the subject, we find many points of interest which had not occurred to us. As the author says: "If the frog was only known by certain fossil remains, it would be considered one of the most anomalous of animals. Many persons are accustomed to make much of the distinctive peculiarities of the human frame. In fact, however, man's bodily structure is far less exceptional in the animal series, is far less peculiar and isolated, than that which is common to frogs and toads." Indeed, we treat the frog with contempt simply from our familiarity with him; were he as rare as the ornithorynchus, we should probably think him almost equally remarkable. Taking the different structures in turn, the author compares them with those of other classes of vertebrates, and points out several curious analogies. He takes the opportunity to make some covert attacks on the doctrine of evolution, of which he is a well-known opponent. It is truly no easy matter to suggest from what animal the frog can have been developed, according to the principle of the "survival of the fittest," and the fossil remains of extinct batrachians do not help us. The "missing link" in the frog's genealogy is less easily imagined than in that of man.

We can recommend the book to our readers as both interesting and instructive.

BOOKS AND PAMPHLETS RECEIVED.

Pharmacographia. A History of the Principal Drugs of Vegetable Origin, met with in Great Britain and British India. By Friedrich A. Flückiger, Professor in University of Strasburg, and Daniel Hanburg, F.R.S. London: Macmillan & Co. 1874. Pp. 704. (From James Campbell, Boston.)

Transactions of the Indiana State Medical Society. Indianapolis. 1874. Pp. 219.

Note sur un Moyen de distinguer la Mort Vraie de la Mort Apparente de l'Homme. Mémoire du Docteur Ange Monteverdi. Crémone. 1874. Pp. 19.

Nature Series. The Common Frog. By W. George Mivart, F.R.S. London: Macmillan & Co. 1874. Pp. 158. (For sale by James Campbell.)

Electricity as a Restorative Agent in Narcosis and Asphyxia. By John J. Caldwell, M.D. 1874. Pp. 8. (From the Virginia Medical Monthly.)

A NEW TONIC—"BOLDO."—Researches have been made by Messrs. Dujardin, Beaumetz, and C. L. Verne on this proposed addition to our list of medicines.

Boldo is a tree found in Chili, of a height of five or six feet, isolated on mountainous regions, with yellow blossom and a verdant foliage. Its bark, leaves and blossoms possess marked aromatic odor, resembling a mixture of turpentine and camphor. The leaves contain largely an essential oil. It contains an alkaloid which is already called "boldine." Its properties are chiefly as a stimulant to digestion and having a marked action on the liver. Its action was discovered rather accidentally, thus:—Some sheep which were liver-diseased were confined in an enclosure which happened to have been recently repaired with boldo twigs. The animals ate the leaves and were observed to recover speedily. Direct observations prove its action; thus, one gramme of the tincture excites appetite, increases the circulation, and produces symptoms of circulatory excitement, and acts on the urine, which gives out the peculiar odor of boldo.—*Medical Press and Circular.*

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 19, 1874.

THE drainage question is a perpetual bugbear to us; we would gladly escape it, but it will not be gainsaid. On the one hand, we have present stench and imminent epidemics, and, on the other, we see enormous inconvenience and expense before relief can be obtained. These latter evils would not be so great were we certain that they would bring relief with them, but the more we consider the subject the more we are oppressed by its magnitude and difficulty. We refer to our own city, but as we fear that in a greater or less degree the trouble is very general, we would call to it the attention of all able to advise, and beg them to give us the benefit of their suggestions. In the meanwhile, we will do well to learn what we can from the experience of others. The Sanitary Commission of the *Lancet* has lately published a report on the drainage of Brighton, a town of considerable importance, and in summer one of the most frequented of English watering places. It appears to be a general rule that any town which for a few months in the year is called upon to provide for a great addition to its normal number of inhabitants is liable to suffer from sanitary troubles. The case of Brighton is in one respect different from that of most places, namely, that in great bathing resorts there are special objections to any plan of drainage which would pollute the water in the neighborhood.

In 1862, twelve years ago, attention was called to the bad state of affairs by the *Lancet*. Three-fourths of the houses drained into cess-pools without outlets, the stench was terrible, the well-water much affected and the sea in front made unclean by the sewage of the town. After much discussion, a sewer was carried some five or six hundred yards out to sea in front of the town. Though the improvement was marked it was far from adequate, and, in 1868, the *Lancet* again took up the matter, and after further discussion more radical measures were resorted to. There is now a great sewer running to a point seven miles distant, which carries the sewage of Brighton and other towns out to sea. The diameter is five feet at the beginning and seven feet at the outlet. The expense was one hundred and fifty thousand pounds sterling, or three quarters of a million of dollars. The town certainly is entitled to great credit for the grand scale on which the work has been done, but, unfortunately, it appears that, after all, there is still much to be desired. The fall of this sewer is but twenty-one feet in its whole length, and this cannot be sufficient to keep it clean, particular-

ly in dry seasons, while its capacity is not sufficient in heavy storms, and old outfalls must still be used. Many, if not all, of the ventilators in the course of the sewer appear to be carried but a short distance above the ground, so that the emanations from them are very perceptible. Worst of all, the smells in the town itself are by no means abolished. Their origin is not clear, but the general opinion seems to be that they come from the remains of the previous accumulations, and if this is so they do not detract from the merits of the present system, but it is not certain that the continued use of closed cess-pools is not to some extent accountable for them.

It is greatly to be regretted that so much money should have been expended without a better result, and we call particular attention to the case as showing how many points must be taken into account in such an undertaking. We are not yet prepared to prescribe any treatment for our own disorders, but, as we are sure that great expense will be inevitable, we would have every point carefully considered before anything is done, so that we may have the full value of our money. Let us be but sure of this, and no outlay will be considered too great.

THE BEEF-TEA FALLACY. By A. MACKINNON, M.D., Stratford, Ont.—Many years ago, that greatest of chemists, Baron Liebig, proposed extract of meat as an agent of value in certain cases of extreme nervous and physical exhaustion. This proposition at once sent the medical world agog, and ever since it has been the custom, with practitioners generally, to prescribe extract of beef in all cases requiring a supporting treatment, and in not a few requiring no such treatment, in the full belief that the article in question was the most concentrated, and at the same time the most easily appropriated and life-giving aliment that the patient could have administered to him. The belief is general that extract of beef is the very quintessence of beef, and, as a matter of course, infinitely more nutritious than beef itself. Such being the opinions entertained, we need feel no surprise at the wide-spread custom of feeding the sick with beef-tea or extract of beef, to the exclusion, to a large extent, of other articles of diet, including beef itself. That this practice is almost universal I need not stop here to show, since the fact must be known to the most casual observer. Physicians, generally, are in the constant habit of ordering extract of beef as food, in all conditions, from enfeebled health to the most acute disease. If the patient is weak, he is at once ordered beef-tea; and if he is still sinking, he is ordered a still larger portion of beef-tea. Such is the practice, as we daily witness it, and such is the practice as seen in all civilized countries, and such will be the practice until many thousand lives more are added to those already sacrificed at the shrine of this stupendous delusion.

What would be thought of the physician who, when called to the bedside, ordered coffee for diet, and more coffee as the patient's strength failed. Of course he would be declared mad; but, as I shall endeavor to show, he is only a trifle more so than the man whose reliance is on extract of beef.

To the intelligent comprehension of the question, it will be necessary to briefly inquire into three points:—

1st. What tissue or tissues of the human fabric more immediately concern the performance of the functions and the continuance of life?

2d. What kind of food is best adapted to the production and support of such tissue?

3d. Does extract of beef contain such food in due, or any, proportion?

As to the first question, all science teaches us that fibrous tissue largely predominates in the higher order of animals, more especially in man. It is contained in bones, tendons and ligaments; nerves and bloodvessels are mainly composed of it; the connecting and various lining membranes are almost purely fibrous; and, lastly, the great muscular system is made up of bundles of fibres, including the heart itself, which is to the animal what the main-spring is to the watch. To enlarge here, would sound too much like demonstrating a self-evident proposition. It is only necessary to add, that every one must be impressed with the important part which fibrous tissue plays in the animal economy, and the paramount necessity of promoting its development and supplying its waste.

The second question is equally easy of solution, since science happily confirms what the experience of ages points out as the most nutritious kind of aliment. In this department of investigation, chemistry has opened up a wide field, the importance of which, to the intelligent physician, is daily becoming more and more apparent. No argument need here be advanced to show that it is from *nitrogenous* substances that muscle and the other fibrous tissues are developed, and the strength of the body maintained, since both observation and science have long ago placed these facts beyond the domain of dispute. *Non-nitrogenous* substances, therefore, do not directly impart strength or vitality to the system, although useful enough as auxiliaries. It is also admitted on all hands that next to milk and raw eggs, or eggs heated to a point short of coagulation of the albumen, the flesh of animals is the most easily assimilated of all food, being already elaborated, and requiring but little change before entering upon its final destination. If to this we add concentration of nutritive power, we can readily see why meat of all kinds, and beef in particular, should be esteemed invaluable as an article of food. It is on these theories that the extensive use of beef-tea and extract of beef is based.

I now come to the consideration of the question, whether the extract of beef contains the *azotized or nitrogenous* elements of beef. According to the foregoing conclusions—and I have taken nothing for granted—unless it can be shown to be nitrogenous in its ultimate elements, it cannot nourish the system nor impart direct strength to it. By this test, extract of meat must stand or fall. There is not one law for extract of meat, and another law for all other substances. The law is the same in all cases, and scrupulously impartial. At the beginning, I stated that Baron Liebig was the first to recommend the use of the extract of beef. It would appear, however, that he never recommended its *abuse*, for we find that a short time before his death he publicly repudiated ever having stated that extract of beef was food capable of sustaining life. A synopsis of the paper in which the veteran chemist vindicated his opinions, is given by the *London Medical Record* of April 16, 1873, and affords highly important evidence on a question on which he was, perhaps, better qualified to speak than any one else.

He wishes it to be distinctly understood that “he never asserted that beef-tea and extract of meat contained substances necessary for the formation of albumen in the blood or muscular tissue;” and “that, by the addition of extract of meat to our food, we neither economize carbon for the maintenance of the temperature, nor nitrogen for the sustenance of the organs of our body; and that, therefore, it cannot be called ‘food in the ordinary sense,’ but we thereby increase the working capabilities of the body, and its capacity to resist exterior injurious influences, *i. e.* to maintain health under unfavorable circumstances.” The editor of *The Record* summarizes the remaining contents of the paper as follows: “Those constituents of meat which are *soluble* in boiling water take no part in the formation and renovation of the muscular tissues, but by their effect on the nerves they exercise a most decided influence on the muscular work, wherein meat differs from all other animal and vegetable food. He (Liebig) therefore places extract of meat (essence), and with it tea and coffee, under the head of ‘nervous food,’ in contradistinction to articles of ‘common food,’ which serve for the preserva-

tion of the temperature and the restoration of the machine. Beef-tea and extract of meat are of themselves incapable of supporting nutrition or maintaining life. Liebig, however, with justice, condemns the conclusions of those who, from comparative experiments on the nutritive value of fresh meat and meat-extract, taken *per se*, argue that the latter is not only useless for the purposes of nutrition, but positively injurious. It should be clearly understood that beef-tea and extract of meat are only to be regarded in the light of auxiliaries to food, rather than independent articles of nutriment."

From this, it appears "that by the addition of extract of meat to our food we neither economize carbon for the maintenance of the temperature, nor nitrogen for the sustenance of the organs of our body," that it cannot be called "food in the ordinary sense," and, hence, is placed side by side with "tea and coffee," under the general name of "nervous food." This is pretty hard on those who believe that extract of beef is beef "simmered down," or the quintessence of beef, and who place the utmost confidence in its nutritive and life-sustaining properties.

Science and common sense are here in perfect accord. No one ever dreams that the juices contain all, or any considerable part, of the nutriment of fruit. No one imagines that the brown liquid poured off his dinner potatoes carries with it the nutritious elements of that valuable vegetable, or that he would derive any benefit from using potato-tea. No one seems to think that his apple dumpling has deteriorated in the boiling, or that apple-dumpling tea contains all the nutriment that apple dumpling is capable of imparting. "Those constituents of meat which are soluble in boiling water take no part in the renovation and formation of muscular tissue." This quotation from Liebig's paper contains a lesson worth remembering, since it is as applicable to most other articles of food as it is to meat.

From this, it is evident the less artificial our food the better, whether in health or disease. Of late years, it has been too much the fashion to run after artificial preparations, such as extract of meat, concentrated milk, infant's food, chemical food, and the like. I have no hesitation in saying that such preparations are not only wholly unnecessary, but absolutely injurious under the ordinary circumstances of life. I grant some of them may be of use for purposes of travel, or under other conditions, placing the simpler and more natural articles of food beyond reach. To this I would make exception in favor of extract of meat, for, although it is not food in the ordinary sense, yet it may be given with advantage in cases of extreme nervous and physical exhaustion.

A few years ago, every invalid was recommended to transform himself into a carnivorous animal. Copious instructions were given for the preparation of the meat, and confident promises of restoration to health were freely made. Civilized people, however, have always had an aversion to raw meat, and the practice, I believe, has not become very general. Raw meat is prepared for use by first beating it into a pulp. Lately, I have been in the habit of directing this pulp to be cooked, simply by adding boiling water to it and agitating the whole briskly. It may be made of any consistency to suit the individual taste, and savored according to the same rule. It may be allowed to infuse a few minutes, as thereby it is rendered more palatable to most persons. In cases of very feeble digestive power, a few drops of muriatic acid, well diluted, taken immediately after each meal, will greatly aid its digestion. This preparation is well suited to all cases where no hunger is experienced and mastication is irksome, or where food is loathed, and the digestive powers are feeble—in fact, in all such cases, as it has been the custom of late years to administer the imaginary food called beef-tea or extract of meat. I find that patients prefer the beef pulp, prepared as I direct, to the extract, while, in point of nutrition, no comparison can be drawn between them. I would only add that it is quite possible to place too much reliance on beef and brandy in cases of extreme nervous and physical exhaustion. New milk and fresh raw eggs are equally important, and there can be no reasonable doubt, that a due admixture of these and other articles,

judiciously administered, is the surest and speediest method of restoring to nature her exhausted strength.—*Canada Lancet*.

THE SCIENCE OF DISINFECTION.—Dr. John Dougall (Glasgow) read an interesting paper on this subject in the Health Section at the Social Science Congress at Glasgow. The author first alluded to the confusing diversity of opinion among scientific men on disinfection and disinfectants. Something less uncertain was required than mere conceptions formed or adduced from the property of impeding or neutralizing putrefaction, or nullifying or masking the smell. Though the ultimate changes produced by putrefaction and fermentation were apparently the same, yet the phenomena of the two processes were as distinct as the symptoms of any two diseases or pathological lesions. This point constituted the foundation of scientific disinfection. A portion of fresh beef infusion grew putrid in twenty-four hours, and at the end of twelve months was still swarming with animalcules, cloudy and fetid. Putrefying bodies yield very various offensive effluvia, according to their constitution and the surrounding medium. Putrefaction is characterized by the presence of myriads of animalcules, fætor, haziness, neutral, alkaline, or faint acid reaction, and slowness of change. Fermentation consists of the presence of torulæ, mycelia and other cryptogams, mouldy aroma, transparency of fluid, acid reaction, and rapidity of change. Fresh organic matter, which if left alone would putrefy, could be made to ferment by adding to it a portion of a mineral acid. Also, if some acid be added to a putrid fluid, putrescence is arrested and fermentation induced; or, if added in larger quantity, putrescence is arrested and fermentation prevented, while the fluid, instead of being fetid, actually becomes slightly fragrant. The result is the same when slight excess of acid is mixed with fresh or fermenting organic fluids, but no pleasant odor is produced. Judging from the manifestations of putrefaction and fermentation, it is obvious that the latter is harmless compared with the former; while their æsthetics are as different as their influence on health. Putrid matter evolving noxious effluvia for nearly twelve months must be more hurtful than fermenting matter almost odorless and fully decomposed in about four months. By the addition of a small proportion of acid to effete nitrogenous substances, fermentation may be substituted for putrescence, or both arrested, or both prevented. The torulæ and other fungi thus artificially induced are no more hurtful than those that grow in cheese, milk, fruits, &c., and are swallowed with impunity. By the proper application of these principles, typhoid fever and diphtheria, which are considered by many to arise *de novo* from putrid matter, might be prevented, and other zymotic diseases greatly diminished. The prevention of decomposition in organic substances by acids is preferable to causing fermentation, but fermentation is again better than antiseption; because, if antiseption be practised on offending matter containing zymotic poison, the poison is preserved as well as the matter, and thus antiseption is seen to be an admirable contrivance for maintaining a constant supply of zymotic germs for originating future epidemics. The use of a pure antiseptic, such as carbolic acid, as an antizymotic, is a palpable paradox, preservation being practised and destruction expected. There are no valid grounds, either on logic or fact, to assume, as is constantly but apparently unconsciously done, that, because carbolic acid arrests or prevents putrefaction, it therefore annihilates zymotic poison. Carbolic acid, in every way and with every advantage, totally fails to affect vaccine lymph; while sulphurous, nitric, acetic and hydrochloric vapor, chlorine, also potash, incorporated with the lymph, render it inert. All true science harmonizes; hence this fact might be inferred from the action of a pure antiseptic and of the stronger acids on organic matter. It was lately stated in American medical journals, that so signal was the failure of carbolic acid as a preventive of yellow fever in New Orleans and Mobile, that suspicion was awakened that its effects were positively injurious, and that it

helped to spread the disease. Dr. Dougall expressed his preference for chlorine, hydrochloric and sulphurous acids as antizymotics, and disapproved of using ferrous sulphate for infectious excreta, as it was merely a deodorizer. He gave a summary of the action of acids and alkalis on fresh, putrid and fermenting matter, and on vaccine lymph; also a classification, by Dr. Letheby, of the apparent *modus operandi* of disinfecting agents. In conclusion, he said two points were worthy of reiteration: 1. Putrefaction of organic matter may be impeded, arrested or neutralized, or the odor neutralized or masked, and yet any zymotic poison present in all probability be unaffected, preserved, or only made dormant for a short time. 2. The mineral acids are true disinfectants; they prevent putrefaction; they arrest putrefaction; they transform putrefaction into fermentation; they deodorize; and, what is most important, they are highly antizymotic as regards vaccinia, and therefore, *à priori*, of other contagia and infecta.—*British Medical Journal*.

SEWAGE GRASS AND SEWAGE MILK.—The *Medical Times and Gazette*, Oct. 31, 1874, contains an account of some observations made by Mr. Hutchinson Smee on the above subject. It will be recollected that at the time of the outbreak of typhoid fever in Marylebone, during the course of last year, the hypothesis was advanced that, inasmuch as the milk of the suspected dairy was in part produced from a sewage farm, we must seek from this fact the real cause of the outbreak. Experience did not support this view, but it was a matter of much importance to know how far and in what respect sewage grass differs from ordinary meadow grass as food for milk-giving cows. Mr. Smee "made an infusion from the tops of grass grown on the sewage farm, and also from a similar weight of grass from a neighboring meadow. The two samples of grass yielded

	Sewage farm grass per gallon.	Meadow grass per gallon.
Nitrogen, as ammoniacal salts,	8.4	2.8
Nitrogen, as ammoniacal organic matter,	1.4	.7
Nitrogen, as albuminoid ammonia,	12.6	5.6
	22.4	9.1

"From this analysis, it appears that sewage grass contains a large quantity of unassimilated nitrogenized matter, and it is not improbable that part, at least, of the albuminoid ammonia is sewage pure and simple, locked up in the cells and juices of the plants.

"The difference between the two sets of figures is truly astonishing, but perhaps the most astonishing is the difference between the albuminoid ammonia—that is to say, the albuminous substances probably partially converted into part and parcel of the plant."

Cows of a similar breed and milking qualities were set aside for the purpose of these inquiries, but it was found impossible to obtain a very satisfactory standard.

Mr. Smee states that "cows which he had fed exclusively on sewage grass have lost flesh and have done badly, even when they have been fed on a mixed diet, substituting only sewage for meadow grass. The following is the analysis of two shorthorn cows, which, before the experiments, were equal in quantity and quality of milk:—

	Water.	Solids.	Casein.	Fat.
Sewage fed,	86.3	13.7	2.5	2.5
Ordinary fed,	86.2	13.8	3.2	3.0

"The cream from these cows was set aside, and the time required for churning into butter was:—

Sewage, 2½ hours;	1½ hours;	butter soft, 2½ hours.
Ordinary, 35 minutes;	14 "	butter firm, ¼ hour.

"Pats of butter were set aside and kept until they went bad; it was invariably found that the sewage butter became rancid many days before butter made from meadow grass did so. More curiously still, however, it was found that 'sewage milk, when placed on one of Graham's dialysers, on several occasions, but not invariably, behaved in a remarkable manner. The casein appeared to separate from the milk, and streamed through the membrane, and fell to the bottom of the vessel containing water. The casein evidently existed in the milk in some allotropic condition. The phenomenon was never noticed in other milks.'

"The results are certainly very interesting and very curious, but, as Mr. Smee himself says, it is by such investigations, long and carefully conducted, that in the end the truth must be sought."

SCARLATINAL WAVES.—*The British Medical Journal* of October 17, 1874, in an editorial on this subject, states that the scarlatinal wave for a year is nearly always at its lowest point in spring, and at its highest, late in autumn, usually in the months of April and November. This may be called the annual wave, and varies but little in its course, whether the disease be epidemic or not. An examination of the deaths in the metropolis (London), recorded during thirty-two years, shows that the *lowest* point in each year was reached, on fifteen occasions, between the tenth and fifteenth weeks, and in nine others between the fifteenth and twentieth weeks; that the *highest* point in each year was reached, on sixteen occasions, between the fortieth and forty-fifth weeks, and on thirteen between the forty-fifth and fiftieth weeks. The total mortality in the thirty-two years, during the five weeks which are included between the beginning of the eleventh and the end of the fifteenth week, amounted to 5,204 deaths, whilst during five weeks which are included between the beginning of the fortieth and the end of the forty-fourth week in the same year, the deaths amounted to no less than 12,172.

Another wave, which may be called the *periodic*, may be represented by a line connecting together the mortality from the disease in each year, and indicates the years in which it is epidemic or non-epidemic. An examination of the mortality in each of the thirty-four years ending Dec. 31, 1873, shows that the disease was epidemic in 1840, 1844, 1848, 1852, 1854, 1858-59, 1862-64 and 1868-70; whilst the smallest mortality occurred in 1841, 1846, 1851, 1857, 1861, 1867 and 1873. It is, therefore, evident that the curve of the descending is much more gradual than that of the ascending wave, as the epidemic takes a longer time to subside than to rise again. The almost uniform recurrence of the disease as an epidemic, after three years of comparatively small mortality, is very noticeable in the figures just quoted.

What are the causes of this periodical increase in the height of the scarlatinal wave? Does it arise from seasonal influences, or other causes at present unknown? To this we can only reply, at present, that the careful comparisons made by Dr. Tripe in 1848, and by Dr. Richardson some years afterwards, show that a temperature below 44° Fahr. corresponds with the spread of scarlet fever, whilst a temperature above that point is coincident with an increase in the mortality; also, that the greatest mortality in the year occurs when the temperature ranges between 49°6' and 56°9', but that the movement in the mortality does not occur in the same ratio with the increase in the temperature. This latter conclusion might have been expected from the comparative regularity with which the disease assumes an epidemic form every four years, whilst there are not, so far as we know, any corresponding sequences in any of the atmospheric phenomena. There is one important consideration respecting scarlatina, as well as smallpox and other eruptive diseases which occur ordinarily only once in a person's life, which must not be forgotten, viz., that in the interval between one epidemic and another a number of children are born who are susceptible to the disease from not having had it, and that the epidemic may chiefly take its origin

by the disease occurring in localities where there are many children unprotected, and thus spread rapidly to persons in the immediate vicinity. This can hardly explain its periodicity, although it accounts for the greater number of cases when the outbreak occurs.

KLEIN ON THE ANATOMICAL CHANGES IN TYPHOID FEVER (*Medical Times and Gazette*, Oct. 24, 1874).—Dr. Klein, of the Brown Institution, has lately made some interesting observations on the above subject. Sections of the hardened ileum of typhoid patients show, according to him, that an active absorption of peculiar organisms goes on in the mucous membrane of, and especially around, the Peyer's patches. These organisms are carried thence into the lymph-canals and the vessels of the mucous membrane.

In the earliest case which he examined, where death had occurred on the seventh day after the first appearance of headache, the crypts of Lieberkühn were found to contain peculiar greenish-brown spheroidal corpuscles of very variable size, the largest twice or three times as big as a human red blood-corpuscle, the small ones only half or a quarter as large. When the bodies lie closely grouped together, as is generally the case, they appear of a dark olive-green color; and the corpuscles at the edge of such masses, or where they are completely isolated, exhibit transitional forms, due to incomplete subdivision. Similar corpuscles are found in the tissue of the mucous membrane, where they appear to be contained in the lymphoid cells of the adenoid tissue. The minute veins, and also some of the lymphatic vessels, contain large numbers of them, and in the former they subdivide rapidly, so as to form greenish-yellow granular micrococci, arranged in groups of two or four, as well as in rings and other figures. The micrococci have their origin in a mycelium whose filaments are branched and apparently smooth, and of a greenish-yellow color. These organisms occur not only in the neighborhood of Peyer's patches, which are moderately swollen, but also in parts of the mucous membrane which to the naked eye show no alteration except slight general swelling, although, microscopically, the follicles of the patches in one case were found to have undergone the following changes:—The central part of the follicle, especially where it lies in the submucous tissue, was converted into a spongy substance by the formation of spaces around its bloodvessels, their wall consisting of the adenoid tissue with which the latter are sheathed. The lymphoid cells of this tissue were converted into large granular bodies containing two to five or even more nuclei, which greatly resembled the nuclei of endothelial cells. In several of the follicles true giant cells were seen.

In a later stage (twelfth day), the mucous membrane itself showed somewhat similar changes, and the multinuclear lymphoid cells were found in its venules and in those of the submucous tissue, as well as in the lymphatics of the latter. Dr. Klein is unable at present to give a decided opinion whether the above alterations are directly dependent on the presence of the micrococci, or whether they must be considered as secondary to changes in the vascular system. The passage of micrococci inwards from the free surface of the intestine can be traced through the epithelium into the substance of the mucous membrane, and especially towards the crypts of Lieberkühn; and this occurs in parts which are some distance from the swollen Peyer's patches, and which appear nearly or quite unaltered to the naked eye.

It is said that Tanner's *Practice* has had the greatest success of any medical publication in England for many years. Several editions of five thousand copies each have been sold.—*Medical and Surgical Reporter*.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

REPORT OF OPERATIONS.

Service of Drs. Bigelow and Cabot. Saturday, November 7, 1874.

1. Fatty Tumor of Thigh.
2. Large Erectile Tumor of Cheek and Neck.
3. Benign Parotid Tumor.
4. Sarcoma of Superior Maxilla.
5. Chronic Mammary Tumor of Breast.
6. Abscess of Knee.
7. Fatty Tumor of Arm.
8. Foreign Body in Hand.
9. Hydrocele.
10. Fistula in Ano.
11. Necrosis of Inferior Maxilla.
12. Fistula in Ano.

1. The case of fatty tumor removed by Dr. Bigelow offered points of interest. Of the size and form of a goose-egg, it was situated in the outer part of Scarpa's triangle, prominent, firm and adherent to the muscles. It was a little movable from side to side, but not at all so in the axis of the limb. From its upper part, a firm band, supposed to be the sartorius muscle, united the tumor to the anterior superior spinous process of the ilium. Its circumference was rounded, without lobes, while the whole mass was singularly hard and unyielding. Under these circumstances, and in view of its locality, a frequent seat of malignant tumor, and considering the age of the patient, a gentleman of sixty, Dr. Bigelow entertained little doubt of its sarcomatous and locally malignant character. He advised its removal only as giving the patient an additional chance. The tumor, said to have been growing only a year, and to have followed a fall, had been examined by distinguished surgeons, who had, on the above evidence, advised against surgical interference. It proved to be an inter-muscular, egg-shaped fatty tumor, without lobes, and presenting to the touch an almost cartilaginous hardness. The band supposed to be the sartorius muscle proved to be fibrous.

2. An enormous erectile tumor of cheek and neck, in a baby four months old, was of congenital origin, had doubled in size within two months, and was nearly oblong in shape. It measured six inches in its longest axis, and projected three inches from the surface. Its inferior portion occupied the whole sub-maxillary triangle, involving the lobe of the ear, while the mass extended upward nearly to the malar bone. It did not pulsate, but, when squeezed, was rapidly again distended. The surface of the tumor presented a number of spots having the usual appearance of naevi. Dr. Bigelow, remarking that he feared to break the skin, transixed the base of the mass with two mattress needles passed at right angles. The growth was then strangulated in four sections, by stout ligatures carried from the projecting needles across the top and around its base. The mass sloughed off on the 11th inst., leaving a large wound. The baby seemed doing well.

4. The sarcoma of the upper jaw presented the usual appearance of a malignant tumor of the antrum. The patient was an elderly female, who insisted on some attempt to relieve by operation her excessive pain in that region. With no hope of curing the disease, Dr. Bigelow divided and raised the cheek, and excavated from the antrum the malignant mass, which proved to be a round-cell sarcoma.

6. A young woman had entered the house with a large abscess, involving the whole anterior surface of the knee-joint, including its outer and inner aspects. Prominent and painful, the swelling had existed about a month, without known cause or antecedent tumor. The absence of constitutional symp-

toms and the freedom with which the joint itself could be moved and handled, indicated a probably extra-articular lesion, a diagnosis which a free incision verified.

H. H. A. BEACH, M.D.,
Surgeon to Out-patients.

Bibliographical Notices.

THE Hospital Sunday fund in London amounted to £4,000. It cost £1,100 to collect it.

THE autumn manœuvres of the troops at Versailles have been followed by a severe epidemic of typhoid fever among the soldiers.

THE last number of the *Nashville Journal of Medicine and Surgery* triumphantly refutes the base charge brought against it of "highfalutin rowdism."

MR. WM. A. BLANCHARD, of the former firm of Lea & Blanchard and Blanchard & Lea, well-known publishers of medical works in Philadelphia, has recently died in that city.

ADULTERATED TEAS.—It was stated at a recent meeting of the City Commissioners of Sewers, that there were millions of pounds of spurious tea in the wharves and warehouses of the city of London, some of which had been accumulating for thirty or forty years. The attention of the sanitary authorities was directed to the fact.—*British Medical Journal*.

DR. J. HUGGINS, of Alabama, contradicts the generally received statement that club-foot, hare-lip and other congenital malformations are rarer in the negro than in the white man. He thinks the reverse is the case, and adds that the negroes in the larger cities are far better specimens of the *genus homo* than their country cousins.

MR. BRIGHT, being invited to be present at a conference of anti-vaccinators, declined to take any part in it, and gave his opinion that the facts were against the anti-vaccinators. He, however, expressed his doubts as to the wisdom of compulsory vaccination, and he "felt that the law which inflicts any penalty on a parent who is unwilling to have his child vaccinated is monstrous."

MEDICAL DEPARTMENT OF DARTMOUTH COLLEGE.—The graduating exercises were held Nov. 4th. Degrees were conferred on twenty-three students. Six of these gentlemen were from Maine, five from New Hampshire, Vermont and Massachusetts each and two from New York. The class consisted of twenty-eight. We regret not to have been informed how many candidates for degrees were unsuccessful.

DEATH FROM SMOKING.—The case is reported in France of a young man who perished in attempting to smoke twelve cigars for a wager. At the eighth cigar he began to feel uncomfortable, at the ninth he had chills and dizziness, which became more severe with the tenth. He still refused to stop smoking, but consented to go home with two of his friends. He was then attacked with vomiting and pain in the abdomen, and, in spite of professional assistance, he died in the night. It should be stated that the heart was hypertrophied.

THE CARRIER PIGEON.—The travelling pigeon never feeds. If the distance be long, it flies on without stopping to take nutriment, and at last arrives thin, exhausted, almost dying. If corn be presented to it, it refuses, contenting itself with drinking a little water and then sleeping. Two hours later, it begins to eat with great moderation, and sleeps again immediately afterwards. If its flight has been very prolonged, the pigeon will proceed in this manner for forty-eight hours before recovering its normal mode of feeding.—*Union Médicale; Medical Times and Gazette*.

UNPROFESSIONAL CONDUCT.—We received, some time since, an article from a well-known practitioner in this State, who is still a member of the Massachusetts Medical Society; but before its turn for publication came we noticed the name of the author over a paper in an eclectic medical journal. Whatever doubts we then felt as to our duty to reject the article were shortly dispelled by seeing in another irregular journal the very case which we still have in our drawer.

BENZINE IN SEBORRŒA.—Mr. Canty, of Liverpool, in his late work on "Cutaneous Medicine," recommends as the best solvent for sebum, benzole, either pure or as a lotion. "If," he says, "there are collections in the convolutions of the ear where instruments can only be inconveniently used, pure benzine, applied with a brush, will readily dissolve the sebum, leaving the central black spot quite intact, as a pillar of dirt and hairs in a cavity. If used on the face, back or shoulders, some camphorated oil being added to ten times the quantity of almond oil, the mixture should be rubbed into the skin at night. In the morning, the benzole lotion should be applied with a sponge or flannel, and afterwards the parts well washed with warm water and soap." He gives the following formula:—

R. Benzole,	℥ss.;
Gum tragacanth,	℥ss.;
Water,	℥viij.

—*Medical and Surgical Reporter; New Remedies.*

NOTES AND QUERIES.

Is it true that any man (*Medical Times and Gazette*, p. 459) can practise medicine in England, even without State authorization? There are some regulations and restrictions surely. We had supposed the law to be very stringent in these matters. Who can tell us, for at this distance the whole matter there seems to be in a muddle? **DIPLOMA.**

ANTHELMINTICS.—"Dr. White said . . . as a practical point, it was very extraordinary how a tape worm, after resisting almost every kind of treatment, would finally be killed by a dose of something."—*Last number of this Journal*, p. 475.

Query.—Did it never occur to anthelmintologists that a tapeworm is a mortal creature, and that, when by reason of age or other infirmity its time of departure is at hand, it may be killed by almost anything that greatly disturbs the alimentary canal of its "host"? **KEPHALEPEP.**

DIED.—In New Bedford, Mass., October 9th, of membranous croup, John Bradford, aged 5 years and 3 months, youngest son, and, October 27th, of diphtheria, George Henry, aged 12 years and 11 months, eldest son, of Dr. John H. and Alice W. Mackie.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending November 7, 1874.*

Boston, 129; Worcester, 15; Lowell, 21; Chelsea, 7; Cambridge, 20; Salem, 9; Lawrence, 8; Springfield, 15; Lynn, 13; Gloucester, 10; Fitchburg, 2; Taunton, 5; Newburyport, 3; Somerville, 13; Fall River, 13; Holyoke, 8. Total, 289.

Prevalent Diseases.—Consumption, 34; pneumonia, 25; typhoid fever, 14; scarlet fever, 12; cholera infantum, 11; diphtheria, 7; croup, 7.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 14, 143. Males, 74; females, 69. Accident, 3; asthma, 1; anæmia, 1; inflammation of the bowels, 3; disease of the bowels, 1; bronchitis, 6; inflammation of the brain, 3; congestion of the brain, 2; disease of the brain, 3; cyanosis, 1; cancer, 2; cholera infantum, 2; consumption, 28; convulsions, 2; croup, 2; debility, 3; diarrhoea, 2; dropsy of the brain, 2; diphtheria, 1; exhaustion, 1; scarlet fever, 4; typhoid fever, 4; gastritis, 1; disease of the heart, 9; disease of the hip, 1; disease of the kidneys, 1; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 16; marasmus, 7; measles, 2; old age, 9; paralysis, 1; pleurisy, 1; premature birth, 2; peritonitis, 1; puerperal disease, 1; rheumatism, 1; ulcer of the stomach, 1; tabes mesenterica, 3; teething, 3; unknown, 1.

Under 5 years of age, 51; between 5 and 20 years, 11; between 20 and 40 years, 24; between 40 and 60 years, 25; over 60 years, 23. Born in the United States, 100; Ireland 23; other places, 15.

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THURSDAY, NOVEMBER 26, 1874.

[No. 22.]

Original Communications.

WOUND OF THE FEMORAL ARTERY. LIGATURE OF THE
EXTERNAL ILIAC. SUBSEQUENT AMPUTATION.
RECOVERY.

By DAVID W. CHEEVER, M.D., of Boston.

ON February 29, 1872, T. S., a healthy boy, of 16 years, had a quarrel with a companion on board the School-ship. Shortly after, as the boys were sitting side by side, his adversary, in rising, struck the patient a back-handed blow with a knife. The wound was a narrow, punctured one, in the left groin, just below Poupart's ligament. Its direction was downwards and inwards. Profuse hæmorrhage immediately came on. The officers of the ship twisted a rope round the groin, and partially arrested it. Meanwhile, physicians arrived, and finally stopped the bleeding by a large pad, compress, and tight, spica bandage over the wound. These were temporary measures, and the only ones that could be employed at the moment. The patient's condition was one of alarming syncope; and, at one time, the radial pulse ceased. He slowly rallied, after the bleeding was stopped, and was then carefully transported to the City Hospital, where he arrived safely, and without farther hæmorrhage. The bleeding being under control, it was thought best to await the progress of events. He was confined to bed, and a special watch set over him. Matters went on quietly for forty-eight hours. He ate a good deal, slept, and recovered animation and strength. In the afternoon of March 2d, as the patient was raising his back for the bed-pan, hæmorrhage came on. The assistant immediately arrested it by pressure with the hand; and the house-surgeon, arriving, cut off the bandage, applied a new compress, and secured the bleeding by a tourniquet and roller-pad directly over the wound. Not more than two ounces of blood were lost.

I was then sent for, and at 7, P.M., had the patient etherized, in order to attempt more permanent measures to arrest the hæmorrhage. On removing the tourniquet and compress, the color, force and quantity of the blood poured out did not leave much doubt that we had to deal with a wound of the femoral artery. It was found that the bleeding came very nearly from under Poupart's ligament. Bleeding could be controlled by pressure of the fingers in the wound; and, aided also by pressure over the bone above, the wound was enlarged, and attempts made to secure the bleeding vessel in the wound. Repeated gushes of blood, however, foiled our efforts; and as the patient was again becoming very feeble, it was deemed more prudent to secure the main trunk above. The tourniquet and roller-pad were again applied to the wound, and the bleeding wholly checked.

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An incision was made above Poupart's ligament, curving upwards and outwards towards the spine of the ilium. The muscles and transversalis fascia were cautiously traversed; the peritoneum was pushed back, and the external iliac artery tied with a silk ligature. It was now considered wisest to guard against recurrent hæmorrhage by tying the vessel in the wound. And, by a little dissection, it was demonstrated that the femoral artery was about half cut through on its posterior wall, just below Poupart's ligament. Ligatures were applied here, and both wounds united by silk sutures. The patient rallied well, and no bleeding recurred. From first to last, there was no peritoneal inflammation.

March 3d.—No hæmorrhage. Pain in left foot. Temperature of legs alike.

March 4th.—Great pain in leg and foot complained of. Relieved by morphia. Patient feeble. Pulse 150. Fed on milk punch. Temperature of right leg, 101°; of left leg, 92°. Distal phalanges of toes of left foot livid; sensation diminished there. Left leg and foot enveloped in cotton batting.

March 5th.—General condition better. Pulse 108. Wounds look healthy; less pain complained of. Temperature, right leg 100°; left leg 92°; one-half the foot blue.

March 6th.—More pain in leg. Temperature of left ham, 97½°. Entire foot mottled with livid lines.

March 9th.—Temperature of *both* popliteal spaces 100½°. Pulse 120; less pain.

March 13th.—Line of demarcation formed half way between ankle and knee. Foot and leg in a condition of moist gangrene, and quite offensive. The limb was imbedded in powdered charcoal.

March 24th.—General condition improving. Ligature came away from iliac artery (22d day). Wound doing well. Soft tissues of leg quite sloughed through.

March 29th.—Condition good. Spontaneous amputation down to tibia and fibula. Etherized; masses of granulations pushed back; bones denuded higher up, by scraping back the periosteum, and the bones sawed off. Moderate hæmorrhage.

May 10th.—The amputation has not resulted well. The bones are exposed; the stump is painful, and a raw, granulating surface extends up beneath the calf to the ham. Patient has three bed-sores. The wound in the abdomen is still open.

May 13th.—The limb was amputated above the knee by Dr. Ingalls.

May 18th.—Stump doing well.

May 22d.—Extension applied to draw down the flaps, which tend to retract.

May 25th.—Doing better.

June 23d.—There is an exfoliation of bone.

July 12th.—The periosteum was scraped back, two and a half inches of necrosed bone sawed off, the cicatrix was cut out, and the edges of the stump brought together.

July 20th.—Stump doing admirably.

July 30th.—Wounds all healed. Discharged, well.

It would appear that the vitality of the limb was so impaired by the ligature of the iliac artery, that nature could not cover in her sponta-

neous amputation, as she often does after frost-bite; nor could she repair an amputation of the thigh, even, without necrosis and shortening.

NITROUS OXIDE GAS.

By H. J. BARNES, M.D., of Boston.

Read before the Suffolk District Medical Society, October 31, 1874.

SINCE the discovery of the anæsthetic properties of ether, in 1846, the subject of anæsthesia has occupied so large a portion of our literature that, reluctantly, I invite your attention to another chapter.

But with the object of correcting what seem erroneous views respecting the administration of nitrous oxide gas, which have recently been published, and to show how it may be made useful and practicable, in place of ether, for painful examinations, short operations, and the adjustment of broken bones, this paper is prepared.

In the JOURNAL of September 22, 1852, Vol. 48, No. 8, this subject was referred to in a communication by H. A. II., replying to the question, "Is nitrous oxide gas an anæsthetic?" The writer begs leave to reply, briefly, that it is not, and challenges the production of a case proving it is; after which, he cites the experiments of Davy, who said he breathed the gas for a week, and at the end had an increase of sensibility to pain, and it only proved to be intoxication. In a number of subsequent papers, in the same volume, these statements are refuted by numerous satisfactory experiments. But, since that time, the subject seems to have attracted little attention, until a case of death from its use was reported in the *Lancet* of February, 1873, page 174, which, by the way, is the only disastrous result from its use I have been able to find. The writer, in a review of the case, remarks "that a dentist stated to him 'that he never extracted a tooth until breathing had temporarily ceased;' and then, in regard to this case, says 'the first symptoms were rapidity of pulse, with diminution of volume, but the immediate cause of death was paralysis of respiration. Nitrous oxide gas, indeed, is not an anæsthetic at all. A true anæsthetic is an agent which suspends sensibility without, by any necessity, interfering with those processes on the continuation of which life depends. Nitrous oxide acts not in this way, but by suspending, for a brief period, one of the most important of the organic processes, that of respiration itself. For the reason named, the insensibility produced by the gas is a period of partial death. This interval, transient, doubtful, dangerous, may allow an operator time for a short operation, and, the agent away, the suspended function may return.'" A French chemist, writing recently on this subject, says "the gas only asphyxiates." Within a year, I have read an article in the Boston Medical and Surgical Journal, mentioning the attendant asphyxia when anæsthesia is produced by gas.

By the courtesy of the dental firm of Drs. Ball and Fitch, of this city, for the past four years, I have been permitted to use their office and gas for such operations as I saw fit, and I have had the advantage of many valuable suggestions as the result of their ten years' experience with the gas, during which time it has been administered by them not less than 15,000 times.

Ordinarily, a person is anæsthetized in from one to three minutes, by from twenty to one hundred inhalations of the gas, by which three or four gallons are consumed. The gentlemen spoken of recall but two patients who could not be brought under its influence. After breathing the gas continually for ten minutes, neither was sensibly affected in pulse, respiration or consciousness, and it was given up.

They remember a larger number, who, at the period of excitement, resisted its administration, and it was, for this reason, obliged to be suspended, they not having the means necessary to confine the patient, and compel the continuance of the inhalation through this stage.

Excitement, intoxication and narcotism are as distinctly observed as when ether is used, and this, too, without asphyxia, for this is accidental and not the necessary result.

The popular notion that it only asphyxiates, is, perhaps, explained by the imperfect method of administration when first used, inhalation and exhalation being carried on through a single opening, into a rubber bag, holding from five to ten gallons, necessitating the continued breathing of air and gas used many times. This is now changed, and inspiration is from the gasometer; while expiration closes the opening, and is carried on through another communicating with the surrounding air.

Asphyxia is now a comparatively rare occurrence, particularly if we follow the rule I quote from Dr. Bigelow's paper, entitled, "Alleged Death from Ether," published last year in the JOURNAL of Nov. 20th. "We should aim at anæsthesia by inebriation, not by asphyxia." If lividity be noticed when gas is used, a half turn of the stop-cock admits air, and the same relief is the result as when this condition follows the administration of ether and the sponge is removed.

The advantages in using gas in place of ether are briefly as follows :
The shorter time required to anæsthetize.

It is more agreeable.

There is rarely subsequent vomiting.

Its effects pass off quicker, three or four minutes being usually sufficient.

There is no danger of ignition when used.

The cost is very much less. Fifty dollars will purchase a complete apparatus for its manufacture, and about four cents a gallon will pay all other expense.

It is made from the nitrate of ammonia, which is placed in a glass retort over a spirit lamp. It quickly melts, and, apparently, boils, but it really undergoes decomposition, and is resolved into gaseous nitrous oxide and steam. It is passed through four jars, holding about two gallons each of water, and one, containing a solution of potash, to remove impurities. It is then conducted to the gasometer, and is ready for use.

The compressed or liquid gas is put in iron jars, holding what is equal to one hundred gallons of gas. These are filled, at six dollars each, and put in portable boxes, a foot and a half long, and about eight inches deep. With an inhaler, a rubber bag as a reservoir for the gas, and the necessary rubber tubing, the price is forty-eight dollars.

I have not observed hilarity as often in patients under its influence as with ether. A few pugnacious, excitable people are with difficulty

carried through the different stages without a struggle. Usually, the gas is taken from this class when their ruling passion is manifested. After the excitement has passed, a little explanation of its effects dissipates their fear, and, with renewed inhalation, they go off quietly.

Ten minutes is the longest time I ever kept a patient under its influence. There were no unpleasant symptoms accompanying or following its use in this case, which was for the removal of a small tumor over the orbit. I should not hesitate to continue it longer, were it necessary, and, since writing this paper, I have been informed, by Dr. W. H. Baker, of its employment in two cases of ovariectomy, one of them lasting over an hour and a half, during his service in the Women's Hospital, of New York.

I have used it thirty-five or forty times in the removal of wens, opening abscesses and felons, the extraction of in-growing nails, &c., and in each case the effect was satisfactory.

The expense and inconvenience of transportation will, perhaps, preclude its general employment in private practice, but, for hospitals, it seems particularly adapted.

Translation.

SUBCUTANEOUS SYMPHYSEOTOMY.

By DOCTOR PICCININI, of Cassano Magnago, Lombardy.

(From the *Lyon Médical*, October 25, 1874.)

THOUGH symphyseotomy was born in France, it was soon abandoned there, and if modern text-books give it a place among obstetrical operations, it is only on account of its historical interest.

Professor d'Erchia Pietro (of Naples) attributes the rejection of this operation to three causes. The first is the accepted custom in France and England of always sacrificing the child for the safety of the mother; the next is the invention of Baudelocque's cephalotribe, which is superior to the hook of the English practitioners; and, lastly, the prevalence of induced premature labor, which permits us to avoid the disagreeable consequences of a pregnancy, by arresting it at any given moment.

It appears to me that, beside the causes mentioned by d'Erchia, there is another of greater importance: namely, the want of a definite rule to decide for the surgeon how much pelvic contraction indicates, and how much forbids, symphyseotomy, followed by the immediate application of the forceps. This is what has induced me to publish the ideas which guided me in this operation, which I performed with perfect success in May, 1870, saving both mother and child.

Symphyseotomy, in cases where the contraction had reached two inches and a quarter (about 65 millimetres), had given such bad results that it was soon abandoned. It was, therefore, important to fix precisely the degree of narrowing which permitted the operation, the moment at which it was indicated, and the immediate and subsequent precautions which should insure its success.

Symphyseotomy, that is the section of a fibro-cartilage, is, in itself, an equally harmless and simple operation. Joulin alleges that it is impossible, beforehand, to determine with perfect accuracy the amount

of contraction and the volume of the foetal head, so that it might be necessary to follow the first operation with a second, to wit, the application of the forceps, and that this would add greatly to the danger of the former, and would be liable, according to him, to rupture the sacro-iliac ligaments. I do not hesitate to treat such allegations as absurd.

In the first place, it is rare for an experienced practitioner, with the many accurate instruments we now possess, to fail to determine exactly the amount of contraction. There is no reason to fear the application of the forceps, which, according to me, should follow every symphyseotomy, and I never have had occasion to deplore the accidents to which Joulin alludes. I presuppose, of course, that the forceps are applied by a skilful accoucheur. According to Joulin, symphyseotomy will permit the separation of the articular surfaces to the extent of from one inch to one inch and a half, which he holds corresponds to merely one centimetre's increase of the antero-posterior diameter. Experience shows that this is not the case. Professor d'Erchia has performed symphyseotomy in a case of contraction to two and one-fourth inches (65 millimetres), and according to me it should not be done where there is less than three inches (80 millimetres), and with the forceps he delivered a living child immediately afterward. The mother survived this application of the forceps, which, according to Joulin, should cause death by tearing the sacro-iliac ligaments.

As for me, the results of my practice are sufficient data; the amount of space permitting the operation is from three to three and one-half inches; after the operation, the forceps should be applied with care, and, by gentle traction and slight rotary movements, the child will be gradually delivered without further pain to the mother, or any traumatic complication. With a contraction to three inches, symphyseotomy will give an additional half inch, and the forceps as much more, making the antero-posterior diameter practically four inches, which is, certainly, a most satisfactory result.

Position of the Patient.—The woman should lie on her back, on a strongly inclined plane, the pelvis supported by a pretty hard cushion, and the head being the lowest part. It is clear that by this position the head of the foetus is prevented from pressing on the pubes, and the operation is thus facilitated.

Preparatory Catheterization.—It is indispensable that the bladder should be empty during the operation; apart from the gain in the antero-posterior diameter, the bladder will be less exposed to injury from the instruments. It is well, after the evacuation of the urine, to depress the bladder with the point of the catheter, or, better still, to put it on one side, lest it should be caught under the arch of the pubes during delivery.

The Section of the Fibro-cartilage is to be performed by the subcutaneous method, according to the usual rules. The fold of skin may be made above the clitoris, and the best instrument is a slightly-curved tenotomy knife, with a blade which must offer a certain amount of resistance.

A Bandage for the Body must be arranged beforehand, and, after the operation, moistened with a solution of gum, so as to make it immovable. Its object is to prevent any separation of the thighs, either by a

movement of the patient, or by an accident on the part of those carrying her; indeed, she should not be moved till it is nearly dry. By the subcutaneous method, the suppuration is avoided which would otherwise increase the dangers. Another advantage is the suppression of sutures; for the soft parts, which, by this method, are spared, contribute greatly to holding the pubic surfaces in place.

To recapitulate, the conclusions of this paper are the following:—

1st. Never perform symphyseotomy when the pelvis is contracted to less than three or three and one-half inches (80 to 95 millimetres);

2d. Operate by the subcutaneous method;

3d. After section of the cartilage, apply the forceps;

4th. The position of the patient, the previous catheterization, the immovable bandage are details of great importance to the success of the operation.

To conclude, let me recall the statistics of symphyseotomy during five years at the hospital at Naples. Operations, 19; women saved, 15; children saved, 16.

Progress in Medicine.

REPORT ON OTOTOLOGY.

By J. ORNE GREEN, M.D.

(Concluded from page 491.)

Desquamative Inflammation of the Middle Ear.—Wendt (*Archiv der Heilkunde*, vol. xiv.) continues his very thorough and interesting investigations on the pathological anatomy of the ear, by studying, clinically and anatomically, the tumor of the ear, which has been described under the name of cholesteatoma, or pearl-tumor. Such tumors have generally been described as a new growth, and have been so considered by Virchow, Gruber, Lucae and others. Some other authors have even considered that they were closely allied to epithelial carcinoma. They are generally found either in the tympanum or mastoid cells, where the mucous membrane has been chronically inflamed and ulcerated, and consist of a pearl-like, oval or round mass, easily removed, which can be broken up into whitish lamellæ. Under the microscope, these lamellæ show large and small epithelial cells in a degenerated condition; between these cells are masses of cholesterine crystals and fat. The tumor generally fills the cavity in which it lies, and, by its growth, causes a destructive ulceration of the neighboring tissues, even the bone. Gruber mentions preparations in which the tumor has destroyed and replaced the entire petrous bone. In a previous report, ten cases of such tumors reported by Lucae were noticed, in all of which there had been more or less destruction of the bone.

Some years ago, von Trötsch, however, opposed the theory that the cholesteatoma was an independent and primary new-formation, and regarded it merely as a collection of inflammatory products, "a kind of retention tumor." Now Wendt supports this view, but goes farther, claiming that the cholesteatomata are the products of a peculiar form of inflammation, which he names the desquamative inflammation of the middle ear; that they consist of collections of an epithelium, secreted by the mucous membrane of the middle ear, but changed in

its form. In eleven cases, examined by Wendt during life, six were found to have their origin in the tympanum proper; in all the others, the tumors were present in the tympanum, but their direct origin could not be determined. The conclusions from his investigations, Wendt gives as follows:—

1. In the external meatus, tympanum and the cavities connected with it, collections of a peculiar cerumen-like substance are sometimes found.

2. Such collections originate, generally, in a desquamative inflammation of the mucous membrane of the middle ear, the epithelial covering of which, during the existence or after the cessation of a chronic inflammation, takes the character of the outer skin, by forming a *rete Malpighii*. From this *rete Malpighii*, cells, exactly resembling epidermal scales, are formed and thrown off; these cells collect in layers, and when shut off from the air undergo partial fatty degeneration.

3. The collections, when loose and dry, cause deafness of a moderate degree, provided there are no serious changes in the conducting apparatus of the ear; but extreme deafness when packed in tightly, or when swollen from moisture. They can also cause pain from the absorption of the moisture from a secretion in the ear, or from the entrance of fluid from without as after syringing.

4. They may be the cause of serious changes in the tympanum, the petrous bone, or even the brain, through the pressure which they exert on the neighboring parts from their increase in growth or from the absorption of liquid.

5. Their removal, although painful, and requiring a long time, is absolutely necessary.

6. It is highly probable that similar masses may be formed from the walls of the meatus, as the result of a chronic inflammation of that part of the ear, and that, from the meatus, they may find their way into the tympanum, through a defect of the membrana tympani, and produce the symptoms already described.

7. The cholesteatomata of the petrous bone, which have been described in the literature as composed of masses of epidermal cells, must now be regarded as the products of a desquamative process in the middle or outer ear, so long as a thorough investigation has not proved them to be of a different origin.

In a review of Wendt's article, von Tröltzsch calls attention to the fact that gigantic, flat cells, closely resembling the epidermal cells of the outer skin, are found, normally, in the antrum mastoideum, and, also, that in some cholesteatomata examined by him a nucleus of dried pus was found in the centre of the mass, so that Wendt's description would not apply to all cases. He also repeats a suggestion made in his work on diseases of the ear, that it is probable that several diseases have been described under the one name of cholesteatoma of the petrous bone.

Embolus in the Mucous Membrane of the Tympanum.—Wendt (*Archiv der Heilkunde*, vol. xiv.) also gives the result of an examination in a case of embolus. A young woman, who died from metastatic abscesses in the lungs and liver, after an operation on the scapula, five days before death, suddenly lost the hearing of the right ear, and three days after, that of the left ear, also. The dissection showed, in addition to some old, the following recent, pathological changes: great swelling,

loosening and fragility of the mucous membrane around the foramina leading to the labyrinth on both sides, and on the left side, discoloration from blood, and numerous blood corpuscles in the tissue. The two stapes were immovably fixed in this swollen membrane. The investigations of Prussak and Brunner have shown that the mucous membrane of the tympanum is supplied by terminal arteries, the same as the liver, kidneys, retina, brain and lungs; those of Cohnheim, that the closure of a terminal artery may produce the very changes found here in the parts supplied by it. "In this case, the region of the embolus was, in the left ear, the upper anterior and the whole posterior part of the median wall and roof of the tympanum; it was sharply defined, discolored bluish black, swollen, cedematous, filled with blood-corpuscles, degenerated, and with a changed epithelium. In the right ear, the posterior half of the labyrinth wall was involved in similar changes."

Although the embolus itself could not be found in this case, the well-marked pathological changes, the suddenness of the attack and the freedom from preceding inflammation, which might have caused similar swelling, would seem to render the diagnosis certain.

Reports of Medical Societies.

NORFOLK DISTRICT MEDICAL SOCIETY.

[Reported for the JOURNAL.]

THE quarterly stated meeting of the Society was held at the Willard House, Hyde Park, on Wednesday, Nov. 11th, 1874, the President, Dr. EDES, of Roxbury, in the chair.

Dr. CLEMENT, of Roxbury, one of the appointed readers, introduced the regular discussion for the day by reading a paper on Drainage and Sewerage, in which he spoke of the use of sewers and of the present method of sewerage; he alluded to the discharge of sewage in improper places, and to the escape of sewer gases, with the means used to prevent such escape. He referred to the use and value of sewage matter, but did not consider that it was valuable enough, in this country, to pay for its removal and utilization; he therefore favored its discharge into large streams or into tide water.

Dr. DOWNES, of Quincy, read a paper, in which he insisted upon the importance of the subject, not only to physicians and sanitarians, but to the people at large. The writer thought that the question should not be left to private individuals, but should be taken in hand by the authorities.

The question most difficult to answer was, how to carry off sewage without contaminating the open streams, and how otherwise to render it harmless. He favored covered drains, as open streams become low at some seasons, and then are a nuisance. He spoke of the methods of utilizing sewage and of earth closets, but favored vaults and the air-tight apparatus for removing their contents.

Dr. AMORY, of Brookline, spoke of ventilating sewers, and described a case in which the ventilator did not prove a success, the gas still giving annoyance. He knew of no good way of ventilating sewers, except by long pipes running up to the tops of the houses.

Dr. MAYNARD, of Dedham, related a case of an establishment which had been built to accommodate six or eight people, with drains and other arrangements to suit that number; it was now made to accommodate sixty or more, with the result of producing an epidemic of fever, the inhabitants of the lower floor suffering much more than those on the upper. He thought it a striking instance of the result of bad sewerage. The drainage of houses is too often the last thing thought of by builders. Physicians ought to attend to this matter, in houses which they visit. He thought it as important to see to the drainage of a house as to prescribe medicine. Traps at the outlets of cisterns are seldom met with, and traps in sink-spouts are not as common as they should be.

Dr. H. P. BOWDITCH, of West Roxbury, said that the subject should be entrusted to those who, as commissioners, have supervision of large tracts of territory, so that some general principle of drainage might be followed. The combined action of large communities is necessary, so that sewage may not be shifted from one spot to another, but be carried to deep water on some general and comprehensive plan of drainage. He thought sewers were seldom large enough to carry off everything that was discharged into them. The sewers are built without reference to the possible amount of water to be passed through them.

Dr. DEARING, of Braintree, cited his own town as an example, and thought it like most other towns. The houses were generally built on elevated grounds, but the soil was wet, having a clay bottom and no drainage, so that it was damp for half the year. Butchers' shops abounded; four such were near his own house, and about these shops offal was left exposed without even being covered, so that hogs and the sun had free access to it. Cities have some drainage and are relieved in a measure, but the country towns suffer, since they have no system. Pig-pens, open and filthy and too near to houses, are an acknowledged cause of sickness, as are open drains and the receptacles of sink-water. Several such places were described, and the statement was made that typhoid fever, consumption and dysentery were common in them.

He thought the Society ought to do something as an organization of medical men; the selectmen of towns would not and could not do anything in their own towns. The matter should be under the care of the State Board of Health, whose power should be increased; and he advised an appeal to the legislature for such augmented authority.

Dr. Goss, of Roxbury, read an extract from the *Lancet* in reference to keeping separate surface water and sewage, and thought it had a bearing in the present discussion.

On motion of Dr. Amory, it was—

Resolved, That this Society recommend to its members to use their influence at the annual town meeting of the town in which they reside, for the election, as allowed by statute, of boards of health, separate and distinct from the boards of selectmen.

On motion of Dr. Dearing, it was voted that the President of the Society, with four members, be a committee to consider the matter of drainage and sewerage in Norfolk County, and report at the next meeting a plan by which it can be controlled by the State Board of Health, or on which the Society can present the matter to the next legislature.

A committee was appointed accordingly.

Dr. GIFFORD, of Stoughton, presented some fresh vaccine virus, and remarked that the humanized virus was better and safer than that direct from the animal, as he had seen two deaths recently from re-vaccination with animal virus.

Dr. TOWER, of Weymouth, asked Dr. Gifford if there was any limit to the amount of lymph one should take from a vesicle, or if all that would flow was good.

Dr. Gifford said he knew of no difference between the first and last that flowed. He had taken three hundred points from one vesicle, and it was all active.

Dr. Goss, of Roxbury, read an interesting paper on cases of cancer, in which nervous symptoms were very prominent.

Bibliographical Notices.

Note sur un Moyen, simple, facile, prompt et certain de distinguer la Mort vraie de la Mort apparente de l'Homme.

Note on a simple, easy, prompt and certain Method of distinguishing real from apparent Death in Man. By Dr. ANGE MONTEVERDI. Crémone. 1874. Pp. 20. With six Plates.

A CERTAIN sign of death has long been desired by the scientific, and perhaps even more by the ignorant, world. Every now and then we read in some paper a supposed case of premature burial, resting chiefly on the fact that the body is not found in the position in which the friends thought it should be. It would not probably be too much to say that ninety-nine of one hundred cases rest on no sufficient foundation. At Munich, every person, rich or poor, high or low, is obliged to lie a certain time after death (we think three days) in a public mortuary, and the string of a bell is fastened to the hand of the body. This custom has been in vogue for several centuries, during which the bell has been rung but a very few times, and we are not sure that in any case the ringing was caused by the revival of a supposed corpse. This shows how little premature burial is to be apprehended; but a single case of it in a century is a calamity that no efforts should be spared to avert. It is to be remembered that it occasionally happens that *post-mortem* changes are singularly slow to develop, that the precise moment of death is usually very difficult to establish, and that, therefore, any researches that may throw light on this question are of great practical importance. The large prize offered in Paris for a certain sign of death, shows the great weight that is there attached to the question.

Dr. Monteverdi's method of distinguishing real from apparent death consists in noting the appearances following an injection of ammonia under the skin. There are certain points in the author's physiology which we think are open to question; the vital principle plays a rather too prominent part. We are not going, *ex cathedra*, to deny absolutely the existence of such a principle, but we hold that if it exists it acts in accordance with natural and chemical laws, and not in opposition to them. According to the author, ammonia subcutaneously injected during health is followed immediately by a bright red spot, which rapidly extends, but reaches its limits in a short time, certainly in half an hour. If the injection be made when the patient is moribund, or in that mysterious state in which some spark of life may possibly exist, though its usual phenomena have ceased, the spot is smaller than in the previous case, but it develops about as rapidly; its color, however, is darker—that of red wine. If the injection be made after death, the spot appears and spreads much more slowly, and, what is most important, presents no red color; there is merely a dirty stain on the skin. The nearer death, the less marked the red color. This, like some other tests of death, rests on the theory that the capillary circulation continues, to some extent, after the

cessation of the heart's contractions, and that when it ceases death is surely there.

Dr. Monteverdi's experiments are numerous and carefully done, but the question occurs, has he ever been able to make a crucial examination? Granted, that if the bright red spot appears the man is not dead, can we be sure from its non-appearance that he is? Are there not rare cases in which the skin appears to die first? Though giving much credit to the author for what he has done, we fear the test is only negative after all. Before it can be absolutely accepted, it must be applied thousands of times, and a single failure deprives it of its value, for it is only for exceptional cases that a test is wanted.

We should like to see this test applied to the body of a man just withdrawn from the water, when the question of the possibility of resuscitation is about to be solved. If nothing is done, no change is seen till mortification sets in, and yet, often, judicious efforts may restore life. Would the test in such a case be of value? It remains to be proved.

Transactions of the Indiana State Medical Society. Twenty-fourth Annual Session. 1874.

THE President's Address had for its subject Alcohol and its Uses. The writer seeks to draw a line between the use and abuse of stimulants in medical practice. He defends the profession from the oft-repeated charge of intemperate temperance fanatics, that physicians prescribe alcohol "without science, common sense or conscience," and that "the man who prescribes it in any form is a quack." Passing by certain crude and erratic physiological notions expressed by the author—as, for example, the statement that "alcohol corrugates animal tissue"—we find much to approve in the sensible views expressed concerning the real utility of alcoholic stimulants.

We note, in passing, that the Indiana doctors, in convention assembled, believe in free speech and mutual improvement, for immediately after the President's address is the report of a discussion among the auditors, wherein the orator was subjected to much good-natured, but out-spoken, criticism.

A prominent feature of the Transactions is a Report on the Medical History of Indiana. We get here some entertaining sketches of the hardships endured by the early practitioners of the State.

The Stethoscope as a Means of Diagnosis in Fractures is the title of a paper by Dr. Laughlin. He illustrates, by a case, the observation that crepitus, which is imperceptible to the unaided hearing and touch, is made very clear with the assistance of the stethoscope.

Dr. Washburn urges the importance of legislation in behalf of the profession; the legalizing of dissections, the restriction of fœticide and of the sale of poison, the regulation of charlatanry and the reform of the coroner's office being specified as in pressing need of legislative attention in Indiana.

Dr. Elder describes a disease which he christens *Morbo Lacteo* (ablative absolute?), but which is better known, in the Mississippi valley at least, as the "milk-sickness," or "trembles." The disease is said to be caused by drinking the milk, or eating the flesh, of cows which have eaten some unknown poisonous shrub which is said to be present only in the grass of wild lands. The animals themselves suffer from symptoms analogous to those which their milk develops in human beings, and the disease sometimes proves very destructive to life. The chief clinical features in the human subject are intractable nausea and vomiting, great prostration, obstinate constipation and a peculiar fetid odor having the "combined qualities of chloric ether and pyalism." The treatment consists in the use of cathartics and stimulants; "once restore the peristaltic action of the intestines and the patient is on safe ground." The disease is never seen where the pasture-land has once been cultivated.

Dr. Boyd reports cases of puerperal eclampsia treated with *veratrum viride*.

Dr. Thompson contributes a long paper on Intra-ocular Diseases. The paper is embellished with colored plates of ophthalmoscopic appearances taken from cases reported.

Dr. Bell, in a paper of considerable merit, avows himself a believer in the theory that epilepsy and uterine diseases sustain an intimate relation to each other. The pertinent criticism followed the reading of the paper that it was remarkable how few epileptics there were among so many cases of uterine disease.

All the contributions to these Transactions are marked by earnestness and vigor. We cannot refrain from remarking that it is a pity that a work otherwise creditable should be marred by very numerous typographical errors.

Infant Diet. By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York. Revised, enlarged and adapted to popular use by MARY PUTNAM JACOBI, M.D.

IN this little book of only 119 pages is contained a very large amount of information concerning the anatomy, physiology and chemistry of digestion during infantile life, with "directions for the mother in regard to the means of averting morbid alterations in the chemical changes that take place in the infant economy during the processes of nutrition."

The whole story, so to speak, has been very carefully written, and is told in a most interesting way, with the avoidance, as much as possible, of technical language.

We do not think that the statements herein contained have been all "restricted within the limits of what is already positively assured to science," as is proposed in the Preface. At any rate, much will be found here that is new to those readers who do not devote themselves specially to this branch of science. This is particularly noticeable in the description of the varied functions of the inorganic salts; and in the great importance attached to their proper supply in the food. As illustration, we are told of the phosphates, that a deficiency of the phosphate of potassa "impoverishes the blood," and that by this deficiency, also, "the muscles become weak." By the oxydation and heat following the contraction of muscles, "acids are formed in the substance of the muscles," that gradually accumulate as cinders do in a grate, and with a similar result, namely, the arrest of heat, "the activity of the muscle stopping also, as inevitably as does the work of a piston from which the supply of steam has been cut off. Moreover, an albuminous substance is coagulated in the muscles, making them stiff and painful. It is the phosphate of soda contained in the blood that neutralizes the acid and dissolves the coagulum, and thus restores the muscles to their freshness and vigor and enables more heat to be generated. Deficiency of phosphate of soda, therefore, interferes with the action of the muscles and thereby checks their development." "The phosphate of soda is one of the principal agents to maintain the alkalinity of the intestinal contents and to neutralize the various acids which are liable to form during the process of digestion. Insufficiency of this salt, therefore, will first favor acidity of the bowels and ultimately interfere with the formation of tissues, and especially with the growth of bone."

As causes of rickets are given:—1st. Deficiency of phosphates in the food to supply the place of those consumed in the organism. 2d. Excessive formation of acids in the digestive tube, which, being absorbed into the blood, dissolve out the phosphates already fixed in the body, especially in the bones, and carry them off in the urine. In this way, farinaceous food, when substituted altogether, or in part, for cow's milk, is often a cause of rickets; being liable to produce acid fermentation, it would also come under the second class of causes. Cow's milk, as it contains more than double the amount of phosphates proper to human milk, when injurious, could never be so from deficiency of phosphates, but would then come under the second class of causes. Meat, prematurely introduced into the diet of young children, by remaining undigested and giving rise to acids, would also come under the

second class of causes. The milk of anæmic or ill-fed women, which is also deficient in phosphates, may induce rickets as surely as artificial food.

Such an explanation of the cause of rickets as the one above given, we had supposed to be now generally abandoned. Certain it is that experience has fully demonstrated the futility of treatment by the administration of phosphates in the food or as medicine. The osseous tissues so affected are, to be sure, deficient in phosphates, not from a deficient supply, but because these will not take them up, in however great amount they may be offered; and to attribute to a deficient supply of phosphates the cause of the disease shows, at least, a want of appreciation of the whole process.

Is it not more rational, too, with regard to all the inorganic salts, to regard a deficient *supply* as a very rare factor in disease? The proportional amount required in food is so minute as rarely to receive particular care or attention in its preparation, and in disturbances of the organism, when they are found deficient, is it not more likely that other causes lie behind, producing, as one result, deficient appropriation by the economy, which deficiency may be accurately detected in the laboratory, but the importance of which in the causation of disease is overestimated, or at least not corroborated by experience at the bed-side?

We find, scattered through the book, a large number of practical suggestions, both for the mother and child, in the main excellent, as we should expect from one so qualified by ripe judgment and experience to speak *ex cathedra*.

For the purpose of diluting the milk, when necessary, the author recommends a thin and transparent solution of gum arabic; when, later, a substance is required that will act as a nutrient at the same time, he employs mostly decoctions of oat-meal or barley, as possessing all the necessary elements of nutrition (albumen and inorganic salts), without so much starch as to render it dangerous when well prepared. In place of "prepared" barley, he recommends every mother to grind it in a common coffee-grinder of her own, as thus no mistake or deception can take place. The author does not encourage the use of Liebig's food, or "patented articles of food," though admitting that "there may be some which deserve attention and credit." "I might name some," he says, "which now and then have proved beneficial in my own hands; and also some which, when I had the analysis made of two different bottles of the same box sent as specimens, yielded greatly varying results. Amongst the axioms we ought not to lose sight of is, that unvarying truth is in nature only; and that trade or money has no soul nor conscience."

In speaking of Liebig's food, he writes:—"The recommendation is a good one. But the object of this paper is to show in what manner substances known to, and in the grasp of, every part of our population, can be employed as a perfectly harmless, reliable, nutritious article of diet. Such substances must have several qualities. They must be perfectly simple and recognizable. They must be found for sale everywhere. Their preparation must be perfectly simple and easy.

"It looks as if the results of this food must be uniformly good, and since the disappointments in regard to its effects have been as many as its recommendations have been eulogistic, I have employed it myself with varying results. I believe that the attention required in preparing the food is the source of failures in most cases. Common sense is not at all a prerogative of every mother and nurse; and it appears that the requirements laid down in Liebig's plan demand too great a complication of cerebral functions on the part of cooks. The attempts at shortening this cooking process, by preparing for the market similar articles requiring less attention and time, are to be ranked amongst the patent merchandize of which I spoke before. It was one of these 'prepared Liebig's food' on which I made the experiments which I mentioned."

"The addition of chloride of sodium to the food is the more important the more the milk is mixed with a vegetable decoction." The chemico-physiological explanation of G. Bunge (*Zeitschrift f. Biologie*) is given as the most

satisfactory, namely: that "the craving for salt grows in proportion to the amount of potassa salts contained in the food." "The phosphate of potassa exists in the blood corpuscles alone, the chloride of potassium in both corpuscles and serum, and the chloride of sodium in the serum alone. If there should be in the blood more phosphate of potassa than can be taken up by the corpuscles, it will be immediately decomposed by the chloride of sodium in the serum; chloride of potassium and phosphate of soda are formed, and these are both eliminated by the kidneys and pass away in the urine. By this means, chloride of sodium is carried away, and must be replaced; in other words, vegetable food requires the addition of a great deal of salt. The substitution of cow's milk for woman's milk necessitates the addition of salt, for a similar reason; for while 1,000 parts of human milk contain only 0.70 chloride of potassium, 1,000 parts of cow's milk contain 1.30." "Owing to the relatively small amount of free alkali in cow's milk, it is recommended to add an alkaline salt (the carbonate or bicarbonate of potassa or soda) to cow's milk, and best at once, when the milk is put aside for the infant's use."

The device of parents to procure the milk of one special cow the author believes to be a mistake, as when the child has become accustomed to one cow's milk it will be more likely to suffer from the abrupt transition to that of another cow, a transition, nevertheless, often inevitable. He always advises the plan of giving the average milk of a farm, and has never been sorry for the results. Condensed milk is recommended, "the addition of loaf sugar" that is used in its manufacture "being rather an advantage than otherwise." We are surprised at this statement, for we have always considered that the large excess of sugar contained in the above preparation was very objectionable, and although robust, healthy children may often thrive upon it, this is certainly not the case with delicate or scrofulous children brought up with it. No mention is made of the condensed milk now obtainable in our large cities, manufactured without sugar and delivered fresh daily. When kept in a cold place, this keeps well for several days, and is in every respect a much superior article to that manufactured with sugar.

In answer to how babies are to be fed, "the only physiological method" he insists upon "consists in employing the nursing-bottle. Neither spoon nor cup prevents food of too hard a consistence from entering a baby's stomach. The fine preparation of an infant's food is equivalent to an adult's careful mastication. The greatest mistake on the part of mothers and nurses is that thick food is more nutritious; the truth is, that the nutritive power of food grows, *ceteris paribus*, with its dilution."

In conclusion, the author gives the following rules for the feeding of infants in general:—

I. ABOUT NURSING BABIES.

Overfeeding does more harm than anything else. Nurse a baby of a month or two every two or three hours.

Nurse a baby of six months, or over, five times in twenty-four hours, and no more.

When a baby gets thirsty in the meantime, give it a drink of water or barley-water. No sugar. In hot weather—but in the hottest days only—mix a few drops of whiskey with either water or food, the whiskey not to exceed a teaspoonful in twenty-four hours.

II. ABOUT FEEDING BABIES.

Boil a teaspoonful of powdered barley (grind it in a coffee-grinder) and a gill of water, with a little salt, for fifteen minutes, strain it, and mix it with half as much boiled milk and a lump of white sugar. Give it lukewarm, through a nursing-bottle.

Keep bottle and mouth-piece in a bowl of water when not in use.

Babies of five or six months: half barley-water and half boiled milk, with salt and white sugar.

Other babies, more milk in proportion.

When babies are very costive, use oatmeal instead of barley. Cook and strain.

When your breast-milk is half enough, change off between breast-milk and food.

In hot summer weather, try the food with a small strip of blue litmus paper. If the blue paper turns red, either make a fresh mess or add a small pinch of baking soda to the food.

Infants of six months may have beef-tea or beef-soup once a day, by itself, or mixed with other food.

Babies of ten or twelve months may have a crust of bread, and a piece of rare beef to suck.

III. ABOUT SUMMER COMPLAINT.

It comes from over-feeding and hot and foul air; never from teething. Keep doors and windows open. Wash your children with cold water at least twice a day, and oftener in the very hot season.

When babies vomit and purge, give nothing to eat or drink for four or six hours, but all the fresh air you can. After that time, you give a few drops of whiskey in a teaspoonful of ice-water, every ten minutes, but not more, until the doctor comes.

When there is vomiting and purging, give no milk.

Give no laudanum, no paregoric, no soothing syrups, no teas.

Typographical errors are few. The attention of the author should be called to a chemical mistake made in the instructions given for the detection of lime when present in adulterated milk (p. 91). The small quantity of lime-water recommended (5i. to a pint), when added to milk, is probably a mistake of the printer. If we may be allowed to make one exception to the otherwise excellent arrangement of this little book, we would suggest that in the next edition an index of the contents be added.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the New Hampshire Medical Society. 1874. Concord. Pp. 129.

Twenty-third Annual Report of the Boston Provident Association. October, 1874. Boston. Pp. 24.

The Medical Use of Alcohol and Stimulants for Women. By James Edmunds, M.D. New York National Temperance Society and Publication House. 1874. Pp. 96.

Outlines of the Science and Practice of Medicine. By Wm. Aitken, M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 593. (For sale by James Campbell & Co., Boston.)

The Drift of Medical Philosophy. An Essay. By D. A. Gordon, M.D. Philadelphia: J. B. Lippincott & Co. 1875. Pp. 70. (For sale by James Campbell & Co.)

The Legal Relations of Emotional Insanity, By E. Lloyd Howard, M.D., of Baltimore. From the Transactions of the American Medical Association. 1874. Pp. 12.

State Street: A Satire. By author of Hard Knocks, &c. Published by A. W. Lovering. Boston. 1874. Pp. 29.

SPONGE RETAINED IN A STUMP AFTER OPERATION.—*Le Mouvement Médical* mentions the case of a man who entered a hospital in Paris with a large granulating ulcer on the stump of his leg, consequent on amputation four months previously, in the reign of the Commune. On examination, a sponge was found imbedded in the granulations. It had been applied as a hæmostatic in the amputation and carelessly left in.—*The Doctor*.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 26, 1874.

THE editor of our esteemed contemporary, the *American Medical Weekly*, draws a comparison between English and American Medical Journals, by no means flattering to the latter. He dwells on the influence the English papers have in such public affairs as come properly within their province, and extols the fearlessness and independence by which it has been gained. So far, we agree with him entirely, and we are not inclined to differ from him very widely in his remarks concerning the American journals. We submit, however, that he hardly does justice to some of them, and if we put ourselves among these, we put the *Richmond and Louisville Journal* among them also. After praising the strictly medical departments in our journals, this critic complains that, as journals, they wield no power, and that every kind of abuse is passed by without censure. "American medical journals, by silence, evasion, disreputable display of irresponsibility, by facile eulogy and indiscriminate praise, do nothing to reward the right and punish the wrong."

It is undoubtedly true that our medical journals have comparatively little influence, and it is true, also, that the fault is chiefly their own. Their power has so long been dormant that it is disregarded; but we believe that if sufficiently exerted it would soon be recognized. We accept our share in the reproof that we have not done as much as we could; but we submit that we have done a good deal. We have had many charges laid to our door, but that of "facile eulogy" is entirely new; it at least presents us in a very different and, perhaps, more amiable light than do the letters we from time to time receive from the writers of rejected communications, and from the authors of many works coming to us for review. The supporters of the American Medical Association have never made any allusion to the "indiscriminate praise" we have lavished on that institution.

We lately claimed that some of the credit of the late rebuke to prohibition in this State is due to our efforts; but, be that as it may, we have never hesitated in our course, though aware of its unpopularity in many quarters. The following note to the publishers, from a town in Connecticut, gives a fair idea of the way our efforts were frequently received:—

"DEC. 31, 1873.

MESSRS. D. CLAPP & SON,—Enclosed, find dues for the 'JOURNAL,' and you will please stop it.

I prefer to read articles in the interest of the free rum interest in some other than my medical journal. Respectfully, _____,"

We took a leading part in the movement that suppressed, in Boston, a so-called "Museum of Anatomy," which had long been an eye-sore to the respectable portion of the community.

We hope to be pardoned the seeming egotism of saying so much of our own doings; we do so merely to show that, in the will at least, there is one journal that takes a higher stand than would be imagined from the article in question. We are, further, happy to believe that there are several others which, if they have not done their whole duty, have spoken out plainly and boldly against abuses. We have no desire to deny that the influence of our medical journals is far less than it should be, and we sympathize fully with the dissatisfaction that the *American Medical Weekly* expresses. We believe, however, that the remedy is in the hands of the medical press, and that by persistently demanding a hearing it can obtain one.

It cannot be denied that certain American Medical Journals are as low and bad as they well can be. It is most mortifying to feel that they may, perhaps, be taken, by those unfamiliar with this country, as specimens of its style. Such exhibitions as we sometimes see are so lamentable and humiliating that, in order not to weep, we must laugh at them. Listen, then, to the senior editor of the *Nashville Journal of Medicine and Surgery*, the President of the American Medical Association:—

"Whenever we corner a home contemporary, in a certain latitude, there is sure to come a wail from over the water, as though medicos on both sides were connected by a naval string instead of telegraph cable only. We have occasionally copied these lamentations for the amusement of our readers, under the head of 'Henglish 'Onesty.' One has just come over, with the *British Medical Journal*, with which we do not exchange, and its managers can only see ours when it is sent to them for a purpose. Managers of English journals are, for the most part, myths; no one knows who they are, no one cares who they are. A publishing house gives a medical corner to an advertising sheet, and dubs it a 'Medical Journal,' picking up some poor fellow lying around loose, with a medical education—only this and nothing more—to run the concern, allowing him enough broken victuals to

— 'pit his painch in,'

as will prevent soul and body from singing out to each other that good old phrase 'good-bye!' No one knows him.* Possibly a descendant of the axe-man employed in ancient times to prevent a redundant population of the island, and, like his distinguished ancestor, he is only

* It is hardly necessary to mention that the *British Medical Journal* is the organ of the British Medical Association, and not under the control of any publishing house. The name and standing of the editor are perfectly well known to all conversant with medical journalism.—EDITORS BOSTON MED. AND SURG. JOURNAL.

abroad when masked. We never send our Journal to such snobs, and we repeat, that they can only get it when it is sent to them by others, and it is never sent without a special purpose. This purpose is, that one on this side of the water may get what, in his imbecility, he believes, a blow from the other side that will finish us. Poor fool, he forgets, or never knew, that a man, to be done for and wiped out, must do that little job for himself, which one is not very apt to do, who, with a few friends, organized a medical school, walked into it, and during the first decade, taught more than three thousand pupils—an achievement without precedent in the annals of Medicine—and of his own accord retired from active service, carrying with him the confidence of the host he had in part taught, and the warm friendship of every colleague.

"Of course, we regard these blows as the highest compliment the medical Lilliputians who give them can bestow; and the more pompously vindictive the trans-Atlantic cold-victual man is, the more acceptable the compliment. The craven cry of 'help me, Cassins,' on this side of the water, is music to our ear, only surpassed in liquid sweetness by the responsive bellow of the insular little John Bull. . .

"Like the maggot-fly, he deposits his ovum, and is off, leaving its product to the chance of circumstances, while punishment seeks him in vain at his chop-house, armed with the fossil remains of yesterday's chicken, flanked with a mug of ale and a cold potato. He laughs, as he reads what an outraged fellow-subject or distant editor has printed in reply, and quotes Mrs. Webster's instructions, to first catch a rabbit before you roast it. Like his prototype, Bob Sawyer, he expresses his ecstasy by grimace, laughter and gesticulation. His yeasty ale seems champagne of the rarest vintage, and his subsoil edible is no longer rooty in flavor, but sweeter than the honey from the thyme of Ida."

It was long before the irritation which followed the publication of Martin Chuzzlewit subsided in America, but now that we look back at the matter, we are able better to discriminate between the true and the false than was to be expected at the time. Mr. Dickens's fault was not in drawing the offensive characters he did, but in implying that they were fair specimens of Americans, and that there was no better class worthy of notice. After reading the above extracts, who shall assert that Elijah Pogram and Hannibal Chollop were caricatures? Thank Heaven, they are not our representatives.

THE LATE JEFFRIES WYMAN.—At the October meeting of the Middlesex South District Medical Society, the following was adopted:—

That, while we can add nothing to the emphatic language in which numerous associations have testified to the incalculable loss which the recent death of Dr. Jeffries Wyman has inflicted upon the whole circle of natural sciences, we, the physicians of this district, cannot forget that we have lost an associate whose frequent communications to this society were of the highest practical value; that, though early leaving the practice of our profession, he never lost his interest in it; that during his life he was making constant additions to those sciences which underlie intelligent medical practice.

That in the future we shall miss not only the vast resources of his trained intellect, but the man deserving of love, an example in all respects worthy

of imitation, and a character which was an inspiration to all who came within the circle of his influence.

THROMBOSIS CAUSED BY A NEEDLE.—At a recent meeting of the Clinical Society of London, Dr. H. Thompson reported the case of a young woman of hysterical temperament, who was admitted into Middlesex Hospital with febrile symptoms of two days' duration. She had pain in the back, languor and loss of appetite. There were also pain and tenderness in the right iliac region and across the hypogastrium; and, indeed, the whole surface of the trunk appeared to be unnaturally sensitive. There was a systolic murmur at the apex, and the heart's action was tumultuous, but there was no history of rheumatic fever. The day after admission, she became wildly delirious, with a pulse of 160 and a temperature of 105° F., followed in the course of two hours by profuse sweating. On the following day, she had a rigor, with a temperature of 107·4° F., again followed by profuse sweating and a fall in the thermometer. This rigor was followed by others, so that, during the fifty-three days she remained under observation, there were rigors on nineteen, mere chilliness on four; both, as a rule, being followed by sweating. Vomiting or faintness either occurred with the paroxysm of shivering, or played the part of its representative. Whatever the mode of manifestation, the temperature at the time of the outbreak almost always culminated in a peak—on six days, at 105° F. or more; on twenty-six, at 104° F. or more. Twelve days after admission, phlegmasia dolens, with conspicuous enlargement of the superficial veins, appeared in the left lower extremity, and, forty-two days afterwards, in the right, and there remained until the death of the patient. About the time of the first appearance of the phlegmasia, she presented symptoms closely resembling symptoms of pericarditis; and, throughout the case, she complained of aching pain in various regions of the spine. Finally, after a protracted period of delirium, accompanied by profuse diarrhoea, she sank exhausted, and died on the fifty-third day after admission.

At the *post-mortem* examination, there were found to be numerous extravasations beneath the lining membrane of the third ventricle of the brain, but this organ was not otherwise diseased. In the chest, there were subpleural ecchymoses over both lungs, and the organs were oedematous. There were one or two old white patches on the surface of the heart. The mitral valve was thickened, and presented a chain of small vegetations along its auricular margins. In the abdomen, the inferior vena cava, from its commencement to the junction of the renal veins, was filled with a partially decolorized clot, adherent to the wall of the vessel, and channelled through its centre. At its commencement, just above the junction of the iliacs, the vessel was filled with dirty-brown matter; and in the midst of this a needle was noticed resting in an oblique direction, with its eye pointing downwards and slightly to the left, in close relation to an opening in the back of the vein, about an eighth of an inch in diameter. Immediately above this, another opening existed, measuring a quarter of an inch in diameter. Through these apertures, the body of the fourth vertebra could be felt, denuded of its periosteum. The left common iliac vein was filled with a brownish-red clot of moderately firm consistence and slightly adherent. The left external iliac and left femoral veins were as small as crow-quills, and were completely occluded by a whitish fibrous plug, which could not be detached from the wall of the vessel. The right common iliac, right external iliac and right femoral veins were obstructed and narrowed by a tough, fibrous-looking layer, firmly attached to the lining membrane. Immediately to the left of the third lumbar vertebra was an abscess, in which a second needle was found, lying obliquely across the body of the vertebra, the surface of which, however, was not eroded. The liver was engorged with blood. The spleen contained several infarctions, one about the size of a marble, softened in its centre. The intestines were much injected; the mucous membrane was the seat of extensive catarrh. The kidneys were normal.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

REPORT OF OPERATIONS.

Service of Drs. Bigelow and Cabot. Saturday, November 14, 1874.

1. Hare-lip.
2. Deformity of Face.
3. Tumor of Nates ("Weaver's Bottom").
4. Painful Stump after Amputation of Thigh; Re-amputation.
5. Painful and Ulcerating Stump after Amputation of Foot; Re-amputation.
6. Cancer of Lip.
7. Extrophy of Bladder; Second Operation.
8. Necrosis of Frontal Bone; Eye destroyed; Enucleation.
9. Necrosis of Tibia.
10. Necrosis of Femur.
11. Amputation of Finger for Felon.
12. Caries of Os Calcis.
13. Abscess of Hand.
14. Abscess of Face.
15. Talipes Equinus.
16. Amputation of Contracted Finger.

The first hare-lip operation was performed upon a woman who had lost the lip and nose, as well as the soft palate, by scrofulous lupus, seventeen years before. As preliminary to making a nose from the forehead, Dr. Bigelow drew the upper lip together and united it, after dissection, upon the median line.

In the second case, that of a young man who had been operated upon in early infancy for double hare-lip, with an imperfect result, a more considerable operation was required. While a notch remained in the margin of the thin and scanty lip, the septum, which had failed to unite with the lip, projected from the tip of the nose. The latter was aquiline, and unusually prominent. Dr. Bigelow divided the lip upon the median line and pared the edges, removing the notch. The cheeks, with the *alæ nasi*, were then dissected freely from the bone, while the fleshy septum and the extremity of the nose, were raised from the cartilaginous septum for more than an inch. The edge of the latter was then pared and shortened, so as to reduce the prominence of the nose and allow the short, fleshy septum to be inserted in the interstice of the lip. The whole has now (six days later) united by first intention, and the profile is much improved.

The tumor of nates ("weaver's bottom") was of six years' duration, in a man seventy-two years old. This was a tumor of the size of a large coconut, depending from the lower part of the right nates. The patient had been making hoops, sitting astride of a bench and leaning on the right buttock, thus creating a friction which doubtless caused the tumor. The growth was movable, fluctuating, with a firm, thick wall, its outline uniformly rounded with a neck, and nowhere lobulated. Dr. Bigelow remarked upon the probable development of this tumor from a bursa near the tuberosity, and stated subsequently, at his clinical lecture, that the affection was mentioned in Bryant's Surgery, under the name of "weaver's bottom," as being not uncommon among the Spitalfields weavers. The tumor was punctured with a trocar, and nearly two quarts of fluid drawn off, of a reddish-brown color, slimy, highly albuminous, and containing abundant cholesterine (seventy-one grains by subsequent filtration). Some straw-colored coagula, which also escaped, proved to be structureless albumen. The sac was then dissected out, adherent chiefly at the tuberosity, and averaging a quarter of an inch in thickness. The wound was left open, the flaps falling into place, Dr. Bigelow remarking that, by the imprisonment of pus, more harm than good usually

resulted from any attempt to adjust accurately, with stitches, the fatty integuments of the back, after the removal of tumors.

H. H. A. BEACH, M.D., *Surgeon to Out-patients.*

BOSTON CITY HOSPITAL.

Service of Drs. Fildes and Gay.

LAST Friday, Nov. 13th, Dr. Fildes amputated the arm of a female patient aged 19 years, who had been in the Hospital since September 10th, suffering the severe effects of an extensive burn. Six days before her entrance, her clothes caught fire, and, before the fire was extinguished, her right forearm was deeply burned from the fingers to the elbow. There were also less severe burns on the arm above the elbow and on the back. The tissues of the forearm were so deeply involved that sloughing was extensive, and several of the fingers became gangrenous. In course of time, all the fingers were lost, either by sloughing or by amputation. The ulcerated surfaces were variously treated, but the healing process was stationary. Oxide of zinc ointment, oxide of zinc in powder, skin-grafting and other remedies proved satisfactory in only a slight degree, and amputation was at length resorted to.

The interesting features of the operation were, the use of Esmarch's method for the control of hæmorrhage and the torsion of all the arteries in the stump. Both procedures gave entirely satisfactory results. The section was in the middle third of the arm. There was not the slightest subsequent accident or complication, and the healing of the stump proceeded without interruption.

Dr. Gay recently had a case of amputation in which the wound made by the injury was utilized in making the flaps. The patient was a young girl who fell from the front platform of a horse-car; the wheel passed over the right arm, making a compound and comminuted fracture of the humerus in the middle third of the left shaft. The skin over the biceps was severed longitudinally, exposing the muscle. The periosteum was stripped from the humerus over a space two inches long.

In performing amputation, Dr. Gay used the opening in the skin to bound the flaps of the stump, instead of going entirely above the wound and making a much shorter stump. The method was not followed by any untoward result. There was no sloughing of the flaps, and the patient left the hospital, after twenty-four days, perfectly well.

Two cases of Thyroid Dislocation of the Hip-joint have recently occurred in Dr. Gay's service. Both were successfully reduced by Dr. Bigelow's method of manipulation. The first case was that of a laboring man aged 25, who was injured while at work in the hold of a vessel. A bale of hemp fell from a distance above him, striking him in the back and spreading his legs wide apart when he fell. After etherization, the thigh was found to be strongly abducted and flexed on the pelvis to an angle of 35°. Extension was impossible. There was a very distinct depression over the great trochanter, with a corresponding prominence at the upper and inner side of the thigh. With the finger in the rectum, the head of the femur could be felt at the upper part of the thyroid foramen. The injured limb appeared relatively lengthened, there being a difference of an inch and a half in the distance from the anterior superior spine of the ilium to the top of the great trochanter, when compared with the sound side.

The femur was strongly flexed, abducted and rotated inward. In the course of this manipulation, the head of the bone could be felt slipping up and down on the brim of the acetabulum. On the third repetition of the operation, the bone was felt to slip into place, and all deformity was relieved. The patient was discharged, well, after thirteen days.

In the second case, the injury was produced by a fall of fifteen feet upon the deck of a schooner. The symptoms of dislocation were similar to those in the case just described. The same method of reduction was adopted, success attending the first attempt.

Medical Miscellany.

SCARLATINA is very prevalent throughout Great Britain and Ireland.

TRACHEOTOMY IN SPASMODIC CROUP is indicated in exceptional cases only.

PROF. BURT G. WILDER will give the course on Physiology at the next term of the Medical School of Maine.

IT has recently been computed that there is a birth in London every five minutes, and a death every eight minutes.

DYSPŒA IN LARYNGEAL CATARRH is rarely observable in adults.—*Niemeyer's Lehrbuch*.

THE British Medical Association will meet in Edinburgh next year. Preparations have been begun, and "lively and pleasant expectations" of the visit are already indulged in.

RHANUS FRANGULA is described by Mr. Joseph Ince, in the *Chemist and Druggist* (June 15, 1874), as a non-drastic, safe, pleasant and efficient purgative.

LOSS OF HUMAN LIFE BY CHOLERA.—The total number of deaths from *cholera Asiatica* during its panepidemics over the earth, which have occurred twice between the years 1816-1860, has been estimated at forty millions.—*Zeimssen's Handbuch*.

RAPIDITY OF THE SPREAD OF CHOLERA.—Cholera has never been known to advance over a given territory at a more rapid rate than the ordinary vehicles employed in facilitating intercourse between that district and some other locality already infected.—*Zeimssen's Handbuch*.

THE REGISTRATION OF DISEASES.—The Legislature of New Zealand has passed a law requiring every medical man to give information to the health authorities of the existence and place of all cases of zymotic disease which come under his observation.

THE ORIGIN OF TRANSFUSION.—According to reliable records, transfusion was first practised, in 1492, upon the person of Pope Innocent VIII. The operator was a Jewish physician. The experiment was tried three times. The result of the treatment was that the blood-donors, three in number, died, as well as the decrepit pontiff himself.

INJECTIONS OF COD-LIVER OIL FOR ASCARIDES.—The *Journal des Connaissances Médicales* publishes a communication from Dr. Szerleki, of Mulhouse, on a case of irritation of the anus and adjoining parts, which was very greatly relieved by injecting an ounce of cod-liver oil into the rectum.—*The Obstetrical Journal*.

THE PREVENTION OF ZYMOTIC DISEASES.—Dr. Lyon Playfair, in his address as President of the Health Section of the British Social Science Association, says: "The isolation of patients afflicted with smallpox, scarlatina and measles will one day become part of hygienic law, though at present it would not be supported by public opinion."

PROF. ESMARCH recently attended a meeting of the Clinical Society of London, and gave a very interesting account of his method of controlling hæmorrhage, together with some reports of cases in which he had seen gratifying success attend its uses. Out of three hundred cases, in which the method has been employed by him, no evil result has followed in any one. His cases had done better, he said, than those treated antiseptically, and with the ordinary means of controlling hæmorrhage.

ANTE-NATAL DEVELOPMENT OF NINE TEETH.—At a recent meeting of the Philadelphia Obstetrical Society, Dr. C. H. Thomas related the case of an infant which, though normally constituted otherwise, exhibited nine perfect teeth when born. In addition to these, a number of small, whitish nodules could be seen and felt along the line of the gums, above and below, lying underneath the mucous membrane, and evidently marking the location of all the other deciduous teeth.—*The American Journal of Obstetrics*.

COLLODION IN CERVICAL ADENITIS.—Dr. Tournié strongly recommends the application of flexible collodion when the superficial cervical glands are enlarged and threaten to suppurate and the skin over them is inflamed. The inflamed region is painted over with a double layer, and an additional layer is added during each of the next three or four days. The application is useless in deep-seated adenitis, or when the glandular swelling assumes a chronic form, without heat and redness of the skin. The object is to prevent the formation of abscess, but when this has actually formed, the application is useless.—*L'Union Médicale*.

FEMALE CATHETER AND THERMOMETER CASE COMBINED.—Dr. Jas. R. Chadwick describes a simple and ingenious procedure for transforming the metal case of the clinical thermometer into a female catheter. This idea is carried into effect by having two eyelets punched in the lower end of the case, and an opening made in the rounded end of the cap, just small enough to prevent the thermometer escaping. It is, of course, essential that the cap should either screw on to the case, or at least fit tightly, inasmuch as without the cap the instrument has hardly sufficient length.—*The Obstetrical Journal*, October, 1874.

NOTES AND QUERIES.

LE(A)D ASTRAY!—Such, says a non-professional reader of the article, should be the title of that remarkable case of impregnation by a rifle ball, in No. 19 of *The American Medical Weekly*.

THE LYNN CITY HOSPITAL will be a reality before many days. . . . At the last meeting, the Association passed the following liberal resolution:—"As this institution is intended to meet the wants of the entire community, there shall be no discrimination in favor of any school of medicine."

This was in a morning paper a day or two since. Will some of our Lynn brethren let us know what the "liberal resolution" means. ? ?

DIED.—In Salem, Nov. 18th, Dr. E. B. Peirson, aged 57.—In South Boston, Nov. 20th, Dr. Paschal P. Ingalls, aged 33.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending November 14, 1874.

Boston, 143; Worcester, 17; Lowell, 23; Milford, 1; Chelsea, 4; Cambridge, 24; Salem, 6; Lawrence, 11; Springfield, 7; Lynn, 2; Gloucester, 3; Taunton, 6; Newburyport, 5; Somerville, 10; Fall River, 19; Holyoke, 6. Total, 287.

Prevalent Diseases.—Consumption, 52; pneumonia, 32; scarlet fever, 18; typhoid fever, 13; croup, 10; diphtheria, 5.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 21, 145. Males, 79; females, 66. Accident, 3; abscess, 1; apoplexy, 4; inflammation of the bowels, 2; bronchitis, 6; congestion of the brain, 1; disease of the brain, 3; cancer, 4; cholera infantum, 1; cerebro-spinal meningitis, 2; consumption, 27; convulsions, 3; croup, 4; debility, 2; diarrhoea, 4; dropsy of the brain, 3; diphtheria, 3; dysentery, 1; erysipelas, 1; scarlet fever, 4; typhoid fever, 3; disease of the hip, 1; disease of the heart, 3; hæmorrhage, 1; intemperance, 2; disease of the kidneys, 3; disease of the liver, 2; laryngismus stridulus, 1; congestion of the lungs, 1; inflammation of the lungs, 14; marasmus, 7; measles, 3; old age, 5; paralysis, 3; pleurisy, 2; premature birth, 2; peritonitis, 4; puerperal disease, 2; syphilis, 1; tetanus, 2; teething, 1; varicella, 1; unknown, 2.

Under 5 years of age, 53; between 5 and 20 years, 12; between 20 and 40 years, 33; between 40 and 60 years, 24; over 60 years, 23. Born in the United States, 107; Ireland 26; other places, 12.

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[No. 23.]

Original Communications.

A CASE OF OBSCURE ABDOMINAL DISEASE.*

By ALFRED HOSMER, M.D. (Harv.), of Watertown.

JUNE 5, 1874.—From Mrs. F., I obtain the following facts: She was born in Boston, Dec. 1846. In 1855, her parents moved to Missouri, where she was soon seized with intermittent fever, which persisted, without interruption, for three months, and afterwards recurred several times until 1860, when she was taken to Iowa, where she experienced no farther trouble. In 1861, she came back to Boston, and remained four years, occasionally feeling an indistinct expression of malarial influence; but, with this exception, considered strong and well. In 1865, she again changed her residence, this time to Brighton. In 1867, she spent nine months in the city of New York, and soon after her return, commenced work in a box factory, and remained there until January, 1872, when she abandoned her occupation for reasons now to be given. The changes which resulted in broken down health began insidiously and advanced by imperceptible degrees. But at the date last mentioned, rather suddenly, she found herself unable to work longer, and presented the following symptoms: Cough, which lasted for two months, marked anæmia, nausea, extreme weakness, some emaciation; severe pain, extending from the nucha along the whole length of the spine; dyspnœa, palpitation, pain in the cardiac region. The spinal pain was of brief duration; but at the end of twenty days, she suffered intensely for a week, from a pain in the right leg, which was located in the lower part of the calf, and on the anterior surface, in the region of the ankle. Edema, extending up to the knee, soon appeared, and has never since left the limb. For a considerable time afterwards, the condition of the leg produced a visible lameness.

In the course of a few weeks, the intensity of the symptoms, which had forced the patient to acknowledge herself an invalid, abated; but no changes took place which promised recovery, and her health remained broken and imperfect. Menstruation first appeared at the age of fourteen, and went on regularly until January, 1872. From that time, the function was tolerably well performed for a few months; but in the following August amenorrhœa commenced and lasted for a whole year. In August, 1873, the menses reappeared once, and were seen no more until April, 1874, when they assumed a natural character, and returned every four weeks. In the autumn of 1873, abdominal enlargement was first noticed. During the following winter, the bladder was

* Reported to the Obstetrical Society of Boston, Oct. 10, 1874.

irritable to a troublesome degree, and exercise was sure to provoke incontinence of urine. In the spring of 1874, œdematous swelling first affected the left leg. The family history throws no light upon the case. Marriage took place July, 1873, and without any apparent detriment, and, certainly, with no advantage to her condition. There is no reason to suppose that conception has ever occurred.

Now, Mrs. F. is in her twenty-eighth year, and is rather a small woman. The countenance is somewhat pale, but, otherwise, the expression is not bad. The functions of the alimentary canal are well performed; the appetite is good, the food occasions no trouble, and the bowels are regular. Nights are comfortable, with sufficient sleep; no pain is felt at any point. The skin is universally harsh and dry; the hair inclined to fall. The strength is seriously impaired, and the flesh considerably less than natural. The patient is dressed every day. The chest furnishes no physical signs. Exercise oppresses the breathing. The pulse is frequent and feeble. The lower extremities are œdematous in their entire length, the right one being much larger than the left. The capillary circulation in both limbs is extremely sluggish, and they show a color closely approaching to purple. Menstruation regular and natural. Leucorrhœa always slight. The bladder gives no trouble, and the urine contains nothing of importance. The thermometer gives only a very slight elevation of temperature. The abdomen, measuring thirty-two inches in circumference at the navel, is unnaturally full, and exhibits an unmistakable prominence in the left lower half. To the touch, it is no where hard and firm, but offers more resistance in the left iliac region. The results of percussion, together with the presence of fluctuation, prove the existence of some kind of a fluid, held in a cyst, which seems to have thin and not very tense walls, and to contain a quantity amounting to three pints, more or less. This collection of fluid extends obliquely from a point well over to the right of the median line in the hypogastrium to the left lumbar region above the crest of the ilium, and fills the space from Poupart's ligament almost to the umbilicus. By the vagina, the cervix is found pointing slightly forward and to the right, having less than the ordinary mobility, and giving the idea that it is held in a somewhat unnatural position by something acting upon the fundus, as by adhesion or pressure. The finger discovers no tenderness, and gets no intimation of any abdominal growth. The uterine cavity takes the sound two and one-half inches plus. The rectum does not prove to be an avenue to knowledge. In answering the question of diagnosis, I could only say that it seemed to me more likely to be a case of ovarian dropsy than anything else.

The details of the treatment prescribed are unimportant; suffice it to say that the patient commenced and continued to improve in many respects until the second half of July, when she began to have attacks which were entirely new. After a premonitory yawning and gaping, there came severe pain in the abdomen, not limited to any part of that cavity, accompanied by great general distress and faintness. About this time, she was forced to take her bed, and to have recourse to morphine. Nausea and vomiting soon appeared in the case, at first occasional, and later persisting day after day.

The first of August found the patient looking very ill, and becoming worse quite rapidly.

August 3d, I thrust the needle of the aspirator into the sac, from a point a little above and to the outside of the middle of Poupart's ligament. I succeeded in obtaining five ounces of a yellowish, transparent serum, containing a large proportion of albumen. This operation was without obvious result. Six days later, August 9th, the attacks of abdominal pain having become more frequent and more severe, the nausea and vomiting more constant and more exhausting, I again used the aspirator, puncturing first at the same point as before, and with precisely the same result. The needle was then introduced a little farther to the right, and about five ounces more of apparently the same fluid was drawn out. The only immediate result of this operation was a visible diminution in the size of the abdomen in the left iliac region. But, in the course of the second week after this, the tumor was found to have undergone some very striking changes. Before setting forth those, I wish to describe two little episodes, which will make this August memorable in the mind of the patient. Early in the month, the bowels had become somewhat slow, and laxatives were resorted to, and, as was supposed, with complete results. But on the 16th, complaint of discomfort in the lower portion of the rectum was so loud that I was induced to explore, and found the bowel packed full of fecal material. The process of getting rid of this accumulation, which proved to be enormous in quantity, was long and tedious, and added to the already great exhaustion. About the same time, pain and tenderness had established themselves in the left arm, extending from shoulder to elbow, which region was also swollen and oedematous. The left external jugular vein was hard, cordy and tender as far as could be felt, and the symptoms in the brachial region were referred to a phlebitis.

To return to the abdominal disease: Instead of that which could be nothing but a sac of fluid, with a smooth, even, ovoidal exterior, I found a solid mass, which felt precisely like a liver, turned bottom upwards and pushed down into the brim of the pelvis. Its anterior surface was smooth; its superior edge was well defined and regular in its outline; the portion lying to the left had a larger vertical dimension than that lying to the right, and, what renders the comparison more complete, was the division of these two portions, one from the other, by a notch or shallow fissure, which could be distinctly felt. This solid mass, almost insensible, occupied just about the same position and the same space as its predecessor, the cyst.

The patient entered the month of September with prospects improved. The nausea and vomiting had ceased; the stomach could receive and retain food; the bowels were more natural in action. Abdominal pains no longer required the constant use of anodynes. The nights were better. The swelling of the legs was very much less. The jugular vein had become soft; the trouble in the left arm had almost disappeared, and, finally, the abdominal mass had undergone an unquestionable diminution of size. The history of the case for September is that of a qualified convalescence. Apart from the progressive, favorable changes in the local disease, the most striking features were an increasing emaciation, a steady loss of strength, and the daily evacuation of incredible quantities of fecal material.

One word as to the menstruation. In July, it was all right. In August, there was simply an intimation of a menstrual discharge,

which lasted but a few hours. In September, nothing whatever has occurred.

The first week in October finds the patient as follows: Digestive system in good order. Strength increased, and flesh thought to be, though she is still very thin. Able to be dressed and to go about the house somewhat. Sleeping well. Legs absolutely free from swelling. Pulse slower and firmer. Countenance brighter. Abdomen naturally flat, 26 inches in circumference. The left iliac region is resonant under percussion. Upon palpation, I feel an ill-defined something, but it is so indistinct that I think a fresh observer would hardly attach any significance to it.

Knowing that the diagnosis of growths within the abdomen encounters difficulties which are presented by no other class of diseases, I venture upon no opinions. I am happy to know that the aspirator verified the assertion of fluid in the first stage of the case. And if there is any meaning in the evidence which comes to a physician's fingers through the abdominal walls of a female, there existed, in the second stage, a solid mass, which, considering the circumstances under which it originated, the peculiar shape which it assumed, the early date at which its course became a retrograde one, the steadiness and rapidity with which it followed that course, is one of the most striking pathological curiosities I have ever known.

What is it?

Translation.

HYSTERICAL HEMI-ANÆSTHESIA.

Translated and condensed from *Léçons sur les Maladies du Système Nerveux.*
Par J. M. CHARCOT.

By S. G. WEBBER, M.D., of Boston.

GENTLEMEN,—I wish to dwell particularly upon two subjects in this and the following lecture—hysterical hemianæsthesia and ovarian hyperæsthesia. I bring these two symptoms together because, generally, they are associated in the same patients.

In order to keep within bounds, I will consider only complete hemianæsthesia, as it is seen in severe cases. Even with such a severity, it is a frequent symptom, since M. Briquet found it 93 times in 400. The same author found it 70 times on the left, and 20 times on the right.

You know how it is in such cases. The two halves of the body being supposed separated by an antero-posterior plane, all one side—face, neck, trunk, &c.—has lost its sensibility, and, though very often only the superficial parts (external covering) is affected, sometimes the deeper portions (muscles, bone, joints) are also invaded.

Hysterical hemianæsthesia is complete or incomplete. Analgesia, with or without insensibility to heat and cold, thermoanæsthesia, is one of the most common varieties. The clearness with which the anæsthetic parts are separated from the healthy is an important character in the hysterical hemianæsthesia. On the head, face, neck, trunk, the demarcation is perfect, and corresponds almost exactly with the median line. Deserving of mention, also, is the paleness and rela-

tive coolness of the anæsthetic side. The ischæmia may be shown by the difficulty there is in severe cases of drawing blood by a pin prick from the anæsthetic parts.

I noticed this formerly when, having applied leeches to a patient attacked with hysterical hemianæsthesia, I noticed that the bites scarcely bled on the anæsthetic side, while on the healthy side the blood flowed as usual. This ischæmia may explain certain facts considered miraculous, as in the epidemic of Saint Medard, sword thrusts did not draw blood on those attacked with convulsions. It is only necessary to suppose that these were subject to hysterical anæsthesia, and that the sword was not thrust in too deeply.

The mucous membranes are attacked on one side of the body, like the external covering. The organs of sense themselves are affected to a certain degree on the anæsthetic side. Taste may have disappeared on the corresponding half of the tongue, from the tip even to the base. The sense of smell is blunted; sight is notably weakened, and, if the left side is affected, it may offer a very remarkable phenomena, which M. Galezowski has called achromatopsia. We will return to this again.

The hysterical hemianæsthesia does not seem to affect the viscera. Thus the ovary may be hyperæsthetic, very painful on pressure, even when the corresponding abdominal wall is absolutely insensible. The ovarian hyperæsthesia and the hemianæsthesia occur on the same side, and if the former is double, the latter is usually generalized, and, consequently, affects nearly the whole body. When paresis or contraction supervene, it is always on the side of the hemianæsthesia.

The hemianæsthesia is so much the more important as it is very nearly a permanent symptom, varying only in degree, and in the intensity of its phenomena.

It is important not to forget that it is a symptom which must be sought. Many patients show great surprise when its existence is revealed to them.

As to how far hemianæsthesia, as above described, is peculiarly a symptom of hysteria, it is very seldom that it can be found with the full combination of its characteristics, caused by any other disease. If it then is well-marked, it is a valuable indication, and it will often reveal the nature of a large number of symptoms, which, otherwise, would remain doubtful. This is not absolutely true; it is especially not correct to say that "hemianæsthesia, arising from encephalic lesions, always differs from hysterical hemianæsthesia in that in the former the skin of the face does not participate in the insensibility," or that, "when it exists it is never on the same side as that of the limbs." This is an error which has been reproduced in these very words, in the interesting thesis of M. Lebreton.

In cases which are, indeed, exceptional, but, yet, perfectly authentic, certain limited cerebral lesions may give rise to hemianæsthesia, with all the characteristics recognized in hysteria, or very nearly so.

The classical doctrine, at least, with us, is that cerebral lesions, occurring in foci which seriously affect the motor power, are almost without influence on the sensibility, especially when situated in the optic thalamus and corpus striatum.

When the lesion occurs suddenly, causing an apoplectic attack, the most marked symptom is a hemiplegia, more complete in the upper

limbs, and accompanied with relaxation. In the face, the buccinator and orbicularis oris are generally affected; the tongue is also protruded towards the paralyzed side. The vaso-motor nerves are also paralyzed, as is shown by an elevation of temperature in the paralyzed limbs.

The sensibility is not appreciably changed, or, at least, not permanently. There is no change in the special senses, unless there is some complication, as embolism of the central artery of the retina. Such is the combination of symptoms found in the vast majority of cases of hæmorrhage or softening, affecting the parts of the encephalon referred to. But by the side of the rule, is a list of exceptions. There are cases, and I have seen several, where the sensibility is chiefly affected, and the anæsthesia persists, even after restoration of motion.

These alterations of sensibility may have the following characteristics: The anæsthesia affects all of one-half of the body, being arrested exactly at the median line. The corresponding half of the face, both skin and mucous membrane, is insensible, exactly as in hysterical hemianæsthesia. It is possible, then, to observe analgesia and thermo-anæsthesia with preservation of tactile sensibility. Finally, there are, also, rare cases where, probably, the special senses were affected on the same side with the hemianæsthesia.

Almost always, when the hemianæsthesia has these peculiarities, the lesion is either entirely, or nearly so, limited to the optic thalamus. Is it necessary to conclude from this that lesion of the optic thalamus is the veritable organic cause of the hemianæsthesia in all these cases?

[Then follows a brief statement of the principal arguments for and against this proposition. He concludes:—]

I believe, from the preceding, that in the cerebral hemispheres there is a region, the lesion of which causes hemianæsthesia; the limits of that region are known approximately, but the localization cannot be more clearly defined, and no one can say whether it is the parts of the optic thalamus, or of the internal capsule, or of the centrum ovale, or of the third nucleus of the corpus striatum, included in that region.

A case is referred to, in which there was trembling, resembling paralysis agitans, on the same side with the hemianæsthesia, where the special senses were affected, there being amblyopia, loss of smell and of taste on that side. He concludes, therefore, that it is very probable that complete hemianæsthesia with disturbance of the special senses, just as it is seen in hysteria, may arise, in certain cases, by a localized lesion of the cerebral hemispheres.

PINT OF PARAFFINE OIL SWALLOWED BY A WOMAN.—Dr. G. R. Gilruth reports a case in which a middle-aged, delicate woman, feeling herself becoming suddenly faint, seized an ordinary quart bottle, thinking it contained porter, and drank the whole of its contents, namely, a pint of paraffine oil. Her mistake being at once discovered, an emetic was given, causing copious vomiting. When seen, shortly after, by Dr. Gilruth, she complained of a burning sensation in the region of the throat and stomach; the surface of the body was cold, but the pulse was good, and the fauces, with the exception of being slightly reddened, had a natural appearance.

The treatment consisted in giving about three drachms of the bicarbonate of soda dissolved in a small basinful of warm water; ordering a hot poultice to be applied over the abdomen; and, later, two drachms of wine of ipecac, but without causing more vomiting. The natural warmth speedily returned to the body, the unpleasant symptoms disappeared, and in the course of a few days the woman was moving about in her ordinary state of health.—*Edinburgh Medical Journal*, Nov., 1874.

Progress in Medicine.

REPORT ON DERMATOLOGY.

By JAMES C. WHITE, M.D.

Reaction of the Skin under slight Mechanical Irritation. (*Vierteljahresschrift für Dermat. und Syph., from Centralblatt.*)—Petrowsky calls attention to the white streaks which are produced upon the skin by drawing the finger-nail or any pointed instrument lightly over its surface. If a figure is traced in this way, no change is at first apparent, but in one fourth to one half a minute the irritated part begins to grow gradually pale; the paleness quickly reaching its maximum, remaining thus for a little time, and then very gradually disappearing. The figure thus traced is plainly visible, but varies in intensity, and lasts, according to the amount of irritation employed and to individuality, from four to six minutes before it wholly disappears. It can be called out at any time, as well when the skin is moist with perspiration as when dry, as well on parts generally exposed as on those usually covered. If a portion of skin is rubbed until red, and the irritation be then practised, the appearance is not evident until the general redness has faded; but if the figure be first traced and the part be rubbed when it begins to appear, it stands out in much bolder contrast upon the red groundwork. It is thus that the well-known "*spirit*" writing upon the arm or other parts is produced.

This phenomenon, according to Petrowsky, is probably produced by a contraction of the arteries of the skin, although it is not impossible that other histological elements of the skin may be concerned in it. In cases where the appearance is not easily developed, the cutaneous vessels must either be paralyzed or their irritability be much diminished.

Skin Grafting. (*Vierteljahr. für Dermat. und Syph., 1 Jahrg., 1 Heft.*)—Studensky concludes, from the results of fifty transplantings of skin upon ulcers, that the scars thus formed, however numerous the grafts, are as little capable of resistance as those which result from healing in the ordinary way from the periphery. He sees, therefore, no practical advantage in Reverdin's method.

Cutaneous Eruptions symptomatic of Rheumatism and Gout. (*Annales de Dermatologie et de Syphiligraphie, Tome 5, No. 6.*)—Professor Profeta, of Palermo, comes to the support of Bazin in his views concerning arthritism. He, too, believes in the existence of a peculiar set of cutaneous lesions which are produced by and are diagnostic of the rheumatic diathesis, which are thus described by him:—

1. The arthritides are seated sometimes upon parts of the body which are exposed, sometimes upon those which are rich in sweat glands and hair follicles, sometimes upon the skin which covers the joints. They are always circumscribed, and if by chance they spread, they never become general.

2. They never appear all at once, but are always developed by successive outbreaks.

3. They are asymmetrical, inasmuch as they never affect two corresponding regions, and, when occurring upon both sides of the body, their abundance and distribution are not the same.

4. The eruption appears in groups, which do not extend, and which never occupy any considerable surfaces.

5. The affected skin is generally of the color of red wine or a raspberry, and small hæmorrhagic spots are often seen in the midst of the eruptions.

6. The efflorescences are polymorphic.

7. They are essentially dry, exhibiting no tendency to suppurate nor to serous exudation.

8. The sensation connected with them is not decidedly pruriginous; it is more prickling or burning.

9. The first outbreak lasts quite a long time; but as they are repeated they disappear more rapidly, and at last have only an ephemeral duration.

10. The arthritides almost always relapse.

Sebaceous Tumors of the Scalp.—Mr. Tyrrell, of the Mater Misericordiæ Hospital (*Dublin Journal*, July, 1874), lays down the following practical rules for the treatment of these growths:—

1. That those which occur at birth, or in early infancy, should be removed without delay, as experience proves that such tumors have a tendency to cause destruction of the bone and to perforate the skull.

2. That the ordinary sebaceous tumors of the hairy scalp do not cause absorption of the bone.

3. That when a sebaceous cyst ulcerates, a spontaneous cure is not to be expected.

4. That when a sebaceous cyst ulcerates, it should be entirely removed as soon as possible.

5. That the ordinary sebaceous tumors may remain harmless for an indefinite time, and do not necessarily grow larger from day to day.

6. That the surgeon should not operate on them unless the patient is in good health, and after a careful examination, particularly of the urinary organs.

7. That for removing such tumors, the knife is preferable to caustic.

8. That external applications and internal remedies are worse than useless.

Erysipelas.—Orth (*Untersuchungen über Erysipel*, *Archiv f. Experiment. Pathol. u. Pharmacol.*, 1873) drew from his experiments upon animals, injecting into their tissues various fluids containing bacteriæ, the following conclusions:—

That epidemic erysipelas is caused by the development of a poison which is contained in the blood and also in the fluids which surround the affected portions of skin.

Erysipelas may be inoculated, by means of the fluids, from man to animals, and from them to him.

The development of erysipelas is always accompanied by a corresponding development of bacteriæ.

The severity of the poisoning is always in direct relation to the quantity of bacteriæ inoculated. Bacteriæ artificially raised are capable of producing erysipelatous infection.

Bacteriæ constitute only the indirect cause of the disease; they are not found in greater quantity in the blood of infected persons; destroying the bacteriæ diminishes the action of the infecting fluid without wholly changing its virulence.

Bacteriæ belong probably to the group of fungi, class schyzomyceæ, tribe microsphaere.

It is supposed that bacteriæ vary in form and nature in the different affections in which they have been observed, but science has not been able to establish any marked difference between them.

To the deduction of any relationship between erysipelas in man and the form of cutaneous inflammation produced upon animals in these experiments, Lukomsky objects, on the grounds that the fluid injected was taken from erysipelatous bullæ already formed, and therefore already in process of change, and that the process excited by it was not true erysipelas, but conditions such as have been often produced by the injection of decomposed substances. By the discovery of micrococci in the lymph vessels and juice canals of the skin, in the neighborhood of a part affected by erysipelas, Lukomsky was led to make an extensive series of investigations (*Untersuchungen über Erysipelas, Virchow's Archiv*, Band 60, p. 418) upon the nature of the disease. These consisted, first, of the most searching examination, by the microscope, of the tissues and fluids of parts affected by erysipelas; second, of injections of fluids containing bacteriæ subcutaneously, and of their application to open wounds, the latter subjects being rabbits.

Nine cases in the first series were examined, several of which were fatal. The details are given at great length, from which it appears that where the erysipelatous process was fresh and still in progress, micrococci were to be found in great numbers in the lymph vessels and juice canals; but that where the process had come to a standstill, or was in retrogression, no micrococci were to be found, even when the inflammation was still intense. Their entrance into the capillaries, where they were occasionally seen, may be effected directly from the juice canals, he thinks, or, first being received by the wandering cells, may be introduced through them within the vessels.

From his experiments with rabbits, he draws the following conclusions:—They support the experience of other writers, that subcutaneous injections of fluids containing fungi produce a rapidly spreading and severe phlegmonous inflammation of the subcutaneous cellular tissue, shared to a considerable extent by the cutis. The micrococci increase largely in the tissue, and spread especially into the juice canals and lymph vessels. This inflammatory process can be excited by a fluid containing fungi which exhibits as yet no signs of decomposition, and also by a similar fluid from a living person, in which there can be no talk of decomposition, unless the presence of the fungus be regarded as an indication of decomposition. Fluids from a dead body, without the presence of micrococci and bacteriæ, of themselves produce only local inflammation, which has no disposition to spread. The contents of erysipelatous bullæ free from fungi, when injected subcutaneously, do not necessarily produce any morbid appearances.

Inasmuch as the phenomena excited by these experiments were unlike erysipelas in that the inflammation was largely confined to the subcutaneous tissue, while in the latter it is mainly seated in the cutis, Lukomsky, in another series, applied the matters directly to simple wounds of the skin. From the results of these, he was led to the following conclusions:—Substances in a state of decomposition containing fungi, when brought in contact with a wound, produce immediately a severe local inflammation, which quickly affects the surrounding skin; this wandering process cannot be distinguished by its symptoms from the so-called erysipelas in man. The micrococci and bacteriæ pene-

trate the tissues of the skin through the juice canals and lymph vessels and wander on through these channels. They are found in greatest quantity at the periphery of the inflammatory process, especially where it is making greatest progress.

Whether the micrococci pass from the surface of the wound to which they are applied into the canals of the skin in an entirely passive manner, by simple absorption, or are introduced by means of the wandering cells, or through the active movements of the bacteriæ, these observations do not determine; neither do they show in what way they again disappear; whether they are destroyed on the spot, or, by means of the wandering cells, are, perhaps, again carried off into the vessels.

Putting together all the data obtained by histological examinations of the erysipelatous skin in man, and from the experiments upon animals, Lukomsky believes that there is a connection between erysipelatous processes in the skin, and its penetration by low organisms, such as micrococci and bacteriæ, and that the progress of the disease depends upon the preceding development of micrococci.

Bromine Acne (*Vierteljahresschrift für Dermat. und Syph.*, 1 Jahrg., 1 Heft.).—Dr. Theodore Veiel, in Cannstadt, having had the opportunity of observing, in the asylum for epileptics, at Stetten, a great many patients who were taking large doses of bromide of potash, has communicated a very interesting report upon the action of this drug upon the skin. The amount required to produce the acne depends wholly upon individuality. In many cases, it appears quickly, with moderate doses, while in others it is wanting, even after the largest doses. It occurs alike in both sexes, and with all constitutions, as often in the robust and full-blooded, as in weak, anæmic and scrofulous persons. No opportunity was afforded of determining the age most liable to it, as only young persons were the subjects of observation. The condition of the skin seems to exercise a material influence upon the disposition to this acne, as it is especially apt to occur when the skin is thickened and greasy with sebum. Comedones and acne of prior existence increase in intensity; and the disappearance of acne vulgaris, after the use of the bromide, as stated by Fox and Cholmeley, was never observed. An acute outbreak, with febrile symptoms, was never noticed, the eruption always appearing very gradually, and exhibiting the most various stages of development simultaneously upon the same individual.

In respect to seat, it differs from ordinary acne, inasmuch as it affects not only the face, neck, shoulders and breast, but, also, as a rule, the scalp, the eyebrows, the hairy portions of the legs, and often the whole surface of the body. It especially prefers parts abundantly supplied with hair, but is never, like sycosis, exclusively limited to one hair district. Its localization, in fact, is identical with the acne produced by tar and iodine. In color, the efflorescence offers nothing characteristic, and its development, duration and retrogression are the same as in common acne. Not a trace of bromine could be detected in the pus collected, although it could be readily recognized in the urine at the time. (It is not stated that the sweat-glands did not contain bromine.) With the increase of the dose, the eruption increases in intensity, and diminishes as the dose is lessened. From acne vulgaris, it may be distinguished by its situation upon parts

abundantly supplied with hair by preference, so that a majority of the pustules appear to be perforated by a hair, and that it often occurs without any concomitant formation of comedones. Inasmuch as these latter peculiarities are common also to tar- and iodine-acne, it can only be distinguished from the latter by the entirely characteristic fetor of the mouth, which affects all patients exhibiting bromine-acne, and by urinary analysis, as the other symptoms of bromism do not appear until after the acne.

Several other forms of cutaneous affections were observed in addition to acne in the Asylum. Erythema nodosum, exclusively of the lower extremities, continued, in some cases, as long as the bromide was given, but disappeared as soon as its administration ceased. It was never accompanied by fever.

A diffuse and very painful erythema, accompanied by fever, and likewise confined to the lower extremities, was more frequently noticed.

Another affection was observed upon the lower legs of two boys. Wheal-like elevations of considerable size appeared upon erythematous portions of skin, which were very sensitive, gradually assumed a wart-like appearance, and underwent ulceration. The ulcers thus formed had a bad look, were deep, and showed no inclination to recovery as long as the bromide was given, but healed at once as soon as this was omitted, and left a scar of a dirty, yellow color behind it.

In another case, a great number of warts appeared on many parts of the body, but in greatest numbers upon the face.

Elephantiasis Arabum Congenita.—Prof. Czerny (*Archiv für klinische Chirurgie*, Bd. 17, Heft 3) reports a very interesting case of this affection, in a woman, 25 years old, several of whose relations in preceding generations, including her mother, had been affected with similar growths. The tumor, at birth situated upon the shoulder, had reached the size of the fist at the age of six, and was removed when she was 20 years old. It grew again rapidly, and when seen by him was of great size, and hung down over the buttocks. An attempt to remove it by the *ecraseur* failed, on account of the great hæmorrhage, and death took place a few days afterwards. Dissection revealed; in addition to the characteristic structure of such growths, which Prof. Czerny regards as a hyperplasy of the subcutaneous tissue, enormous lymph sinuses, and multiple neuromata, which seem to him to have more than an accidental connection with the disease, and to warrant the title, *elephantiasis neuromatosa*, or *neuroma elephantasticum*, which has been applied to similar growths by Bruns. The paper is accompanied by very elaborate plates of the appearances *in situ* and after dissection.

[To be continued.]

OVARIAN CYST IN AN INFANT NEWLY BORN.—Dr. C. J. Cullingworth reports an instance of the above phenomenon, discovered in the body of a well-nourished infant, born at or near the full term. The cyst was unilocular, of globular form, of smooth exterior, and semi-transparent. It was connected with the left ovary and broad ligament by a somewhat flattened base, measuring six mm., passing thence through a somewhat narrower neck into the general body of the cyst. It was covered in its entirety by peritoneum, and bloodvessels were seen passing along its walls.—*The Obstetrical Journal*, October, 1874.

Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON.

[Reported for the JOURNAL.]

OCT. 10, 1874.—Dr. ABBOT, Senior Vice-President, in the chair.

Dr. STEDMAN read a paper on the relation of phthisis to pregnancy, closing with three cases which had been previously reported to the Society.

Dr. HOSMER read a case* in which the diagnosis was ovarian disease, with some complications of a doubtful character, and the result was recovery, or at least a fair convalescence.

Dr. CHADWICK asked concerning the character of the fluid drawn by tapping.

Dr. HOSMER replied that it was the same as in ascites, containing a large amount of albumen, without cholesterine. The urine at the time was loaded with urates; otherwise normal.

Dr. ABBOT suggested that a large fecal accumulation, occasioned by the pressure of a cyst in the left side of the abdomen, might explain the enlargement which was found to persist after tapping.

Dr. CHADWICK said that the pain which was felt while the cyst was perceptible, might have been due to local peritonitis, on or about the cyst, the peritonitis causing an agglutination of the parts, and secondarily an obstruction of the rectum and accumulation of feces; also, that the evacuation of a portion of the fluid does not make it impossible that a solid portion might then fall forward and become perceptible.

Dr. SINCLAIR remarked that a low form of peritonitis might cover the whole case. Thus, by the agglutination of parts, artificial serous cavities might be formed, in which the serum might lie for a long time unchanged, while the agglutinated parts would form masses of fleshy hardness. We might suppose these cavities to be partly relieved by tapping, convalescence to be established, and all the morbid phenomena gradually to disappear without leaving a trace.

Dr. ABBOT suggested that Dr. Hosmer's cathartics may have completed the evacuation of the tumor; and mentioned the case of a woman enormously distended by an encysted ovarian tumor, which came under his observation some years since, in whom there was apparently complete evacuation of the contents of the cyst after severe purgation for ten days, by an irregular practitioner.

Dr. LYMAN asked the chairman if he thought any ovarian cyst could be evacuated by catharsis.

Dr. ABBOT responded that, in the case mentioned, which was for a time at the Massachusetts General Hospital, Dr. J. B. S. Jackson, in whose ward she was, diagnosticated ovarian cyst; that the patient left the hospital to die; that, some time later, he saw her well, a firm mass remaining in the right iliac region, larger than the fist. She afterwards had two living children. The original tumor had distended the abdomen to its utmost capacity.

* The leading article in this number.

Dr. READ stated a case which he thought might be similar to that of Dr. Hosmer. It occurred some years ago; there were symptoms of ascites; tapping gave exit to a large quantity of fluid like melted fat, and was performed in two places, and the abdomen was washed out. It was afterwards found that several sacs had been formed by the gluing together of different portions of the intestines, evidently the result of peritonitis in the first place.

Dr. BUCKINGHAM referred to the phlebitis of the left upper extremity as indicating that it was not a case of ovarian disease simply, and inquired as to the nature of the congestion and swelling of the lower extremities. He considered it impossible, in our present knowledge, to make a diagnosis.

Dr. WELLINGTON inquired as to the relation between the fæcal discharges mentioned in the paper and the subsidence of the secondary tumor.

Dr. HOSMER replied, in answer to these and other questions, that the only previous disease was intermittent fever in early life. In the portion of the case reported, there was no history of chills, but a good deal of nausea in the latter part of July and first of August. He had used castor oil, senna, compound rhubarb pill, and podophyllin, but not drastically; nor had there been diarrhœa. He had felt no fæcal accumulation through the abdominal walls. Nothing was made out by the rectum or the vagina, even when the solid tumor could be felt above. In August, the rectum was loaded and the bowels were cleared out. About the middle of September, the patient was having large, soft, never scybalous, discharges, and at this time she was losing flesh. The three tappings yielded each about five ounces. The resulting hard tumor was distinctly lateral, extending well up into the lumbar region, and was about as large as the previous tumor. There had been pain in the left arm, and the external jugular was hard, cordy and tender. The right leg had been swollen three years; the swelling of the left began only last spring. But there was no phlebitis in the lower extremities.

Dysmenorrhœal Membrane.—Dr. READ showed an entire cast of the cavity of the uterus, thrown off during moderate dysmenorrhœa, to which the patient is subject. She is 30 years of age, married ten years. Her dysmenorrhœa is moderate, not confining her to the house nor making her an invalid. The specimen exhibited came away with no more than the ordinary trouble. There was steady backache, but no intermittent pains.

Manual Dilatation of the Os Uteri.—Dr. SINCLAIR reported a case of placenta prævia. The patient was 40 years old, and had had a child fourteen years before. The flowing began with the eighth month of pregnancy, and occurred in occasional copious gushes. For three weeks, the treatment was temporizing, with rest and quiet. In the fourth week, there was a consultation with two gentlemen, who advised plunging. This was done, and the vagina became thereby enormously distended. Dr. Sinclair removed the plug and found the cervix very firm, rigid, barely admitting the point of the finger. He determined to use manual dilatation, inserting one finger after another. The placenta was found rather more than half over the cervix. He passed the hand into the uterus, and delivered a living child; the placenta came immediately. Delivery was accomplished in twenty minutes from the beginning of manual dilatation. Dr. Sinclair considered the fingers, in

such a case, superior to Barnes's or Molesworth's dilators. No instrument, after the sixth month, can take the place of the hand, with which you know exactly where you are and what you are doing. In the present case, the cervix was long, and it might have been difficult to place and keep in place a dilating instrument. Dr. Sinclair described the manual method he employed, which consists in placing the index finger in the cervix and allowing it to remain; if there is no haste and not much force is used, the fibres gradually yield. The muscular tissue must be tired out, so as not to contract again. Then the finger may be partially withdrawn, the second pointed with it and both entered, and the patient process of dilatation repeated, and so on until the hand is introduced in the usual conical form. In a certain case, it had taken him four hours to introduce his hand. In answer to the objection, quoted by a member, which has been made to the pressure of the knuckle against the uterine substance, Dr. Sinclair stated that, in the five or six times he had done this thing, no damage had ever occurred, or seemed likely to occur, from such a cause. As to the effect of full etherization, he had known pretty strong contraction to take place under this condition.

Dr. CHADWICK stated that in a recent case of hæmorrhage at the fifth month, from retained placenta, one month after abortion, he had tried Barnes's dilators, but could not keep them in place, but succeeded with Molesworth's cylindrical tubes, which he favored. These dilate cylindrically, in virtue of the longitudinal elements of which they are composed, and are marked to indicate to what extent they may be dilated with safety. They are powerful, and sometimes burst if used without caution.

Dr. BUCKINGHAM remarked that the introduction and proper retention of the dilator, before and after the escape of the fœtus, were two very different things as to ease of accomplishment.

Dr. ARNOLD described a method of manual dilatation which he had successfully employed, namely, by crooking the introduced finger or fingers, and so gaining upon the inner surface of the uterus a point of leverage for advancement, and finally, by closing the hand forcibly, an act which, itself, has a dilating effect. In cases of retained placenta after abortion, he advocated the use of Loomis's placenta forceps, which he had used in several instances without damage.

A Case of Retained Placenta.—Dr. TUCK reported a case of retained placenta in the fifth month of the sixteenth pregnancy of a woman aged 42. She was stout and strong. She miscarried suddenly, under the care of another physician. The fœtus was six or seven inches in length. When called to see her, she was blanched, exsanguine; the placenta was presenting. With the placental forceps, he worked long and slowly, and extracted half a teacupful of fragments; then, afraid to go further, and the flowing being largely checked, he plugged the vagina with a sponge soaked in a solution of persulphate of iron and done up in a handkerchief. The next morning, the patient was comfortable. In the afternoon, the air-bag was substituted for the sponge plug, and in twenty-four hours more a placental mass larger than a horse-chestnut was found in the vagina. The case afterwards went on without accident.

Dr. CHADWICK asked if the use of placental forceps were not groping in the dark. He had never used and never had faith in them.

Dr. TUCK stated that he had used the instrument with care, assuring himself, by the aid of the finger, that no uterine substance was grasped.

Cephalhæmatoma treated by the Aspirator.—Dr. HOSMER said he had tapped, with the aspirator, a large cephalhæmatoma of the left parietal, and with entire success. The tumor at once collapsed, and a few weeks afterwards the hard edge had entirely disappeared.

Chloral in Parturition.—Dr. LYMAN asked for an expression of opinion upon the use of chloral hydrate in the first stage of labor. In one case of his, it had given great comfort. There were pains, not very severe, but tedious, during forty-eight hours. The patient took in all two drachms, fifteen grains at a time, and was allowed to take that dose whenever she wanted it, but at not less than an hour's interval. It deadened the pains, but had no relaxing effect upon the os.

Dr. WELLINGTON asked if that were a safe direction for the patient.

Dr. LYMAN thought it perfectly so. Of late, he had used the croton-chloral, which he thought a great deal better.

Mortality Statistics of Parturition.—Dr. WELLINGTON referred to the mortality statistics of labor, to which his attention had been turned by the recent loss, eight days after delivery, of a patient who had suffered, during and after labor, from a valvular disease of the heart. She died from distress of breathing. He thought Duncan, in his work on obstetrics, underrates the mortality, namely, about one in one hundred within four weeks after labor. In the report of St. Bartholomew's, for four or five years, the proportion is 1 in 298. Of his own cases, Dr. Wellington had found a record of 634 and 10 deaths; of the latter, one was from valvular disease of the heart, three from puerperal pyæmia, two from disease of the brain (probably apoplexy), three from consumption, and one from puerperal mania. Excluding the three cases of phthisis and one of valvular disease of the heart, as not being properly puerperal, there were six, which is a proportion of 1 to 105. If we take only the deaths which occurred within six weeks after delivery (excluding the death from disease of the heart, which occurred eight days after labor) we should have 5 deaths, or 1 to 126.

Dr. BUCKINGHAM suggested that St. Bartholomew's patients probably leave at an early date.

Dr. LYMAN remarked, some are also probably delivered in the neighborhood, and their histories not followed up, though reckoned as hospital cases.

Dr. TUCK said that at the Boston Lying-in Hospital the patients leave on the fourteenth day. No record is kept of their condition afterwards. If there is any reason why they should stay longer, they do stay. They are never out till they have first been up and about in the house. If a patient leaves prior to the prescribed time, she is obliged to sign a paper, stating that she does so contrary to the advice of her physician.

Dr. WELLINGTON asked if it were proper that a woman should be up in less than two weeks. He never allowed patients to get up before two weeks if possible.

Dr. LYMAN thought getting up early from labor favored arrest of involution.

Dr. ABBOT did not think the mortality statistics of individual physicians should be discredited. He proposed that each member should report his own cases. He himself recalled but three deaths.

Bibliographical Notices.

Atlas of the Osseous Anatomy of the Human Ear. By N. RUEDINGER, M.D., University Professor, Adjunct and Prosector in the Anatomical Institute of Munich. Translated and Edited, with Notes and an additional Plate, by CLARENCE J. BLAKE, M.D. Boston: A. Williams & Co.

THIS atlas, which is a reproduction, with an English text, of portions of the well-known work of Professor Rüdinger on the Human Ear, is intended "to provide the teacher and student with correct representations of the more important parts of the osseous anatomy of the human ear, accompanied by explanatory text and notes, available for instruction or for reference." The plates consist of photographs, all but one taken by Albert, of Munich, from the original negatives, which are recognized in Europe as most beautiful specimens of photographic art. They represent, respectively, the temporal bone, the ossicula auditus separate, the ossicula in their natural position together, the osseous labyrinth from above, the osseous labyrinth from without, the osseous labyrinth from behind, the cochlear portion of the vestibule, and a section through the whole petrous bone, showing the relations of the parts of the ear. In addition to these eight plates from the original work, Dr. Blake has given a photographic representation of the inner wall of the tympanum and meatus. The text, consisting of anatomical explanations of the figures, has been carefully translated, and an admirable description of the cavity of the tympanum accompanies the American frontispiece. Several notes, by the American Editor, add considerably to the value of this edition; among these, might be mentioned excellent descriptions of the complex system of arteries and nerves supplying the ear, and of the special and articular ligaments of the ossicles. The atlas, as a whole, gives a much clearer and more satisfactory idea of the osseous anatomy of the ear and of the relations of the different parts to each other than any of the anatomical textbooks, and it is to be hoped that the success of this work will justify both publishers and editor in giving the remaining plates of the original *Atlas des Menschlichen Gehörorganes*.

Outlines of the Science and Practice of Medicine. By WM. AITKEN, M.D., F.R.S. London: Charles Griffin & Co. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 593.

As this is little more than a digest of the author's larger work, we do not feel called upon so much to discuss the subject matter, to criticize the treatment, &c., as to consider whether the book is good for the purpose for which it was written. The author says, in the preface, that the book is expressly designed for students, and that it is meant to contain what is "solid, practical and essential for the student to learn on the science and practice of medicine at the outset of his career." An important feature is the instruction relating to case-taking, which is very valuable as conducive to method in examination. The section on pathology is rather sketchy, but sufficient for its purpose, if we suppose it to be taught more thoroughly with some other book. The chapters on physical examination, the methods of conducting it and conclusions to be drawn from it, are excellent. The author has hit the mean between an elaborate treatise and a superficial compendium very happily, and, in a word, we think the book very deserving.

The Physician's Visiting List for 1875. Philadelphia: Lindsay & Blakiston.

MESSRS. A. WILLIAMS & Co. have sent us a specimen of these valuable pocket companions. Besides the pages devoted to notes on cases, there are others for memoranda, obstetric engagements, &c. &c. There is also a calendar and a list of poisons and their antidotes which in certain cases might be of use.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 3, 1874.

It will be seen by the orders published below that the Medical Commission of Massachusetts is relieved from duty, and an Examining Board for candidates for medical positions in the militia established. The commission which is about to be dissolved has, of late, been but little before the public; but in its early career it rendered services, both to the State and to the profession, which should not be forgotten. At the beginning of the late war, Drs. James Jackson, George Hayward and S. D. Townsend (all of whom are now dead) were appointed a committee by the Society for Medical Improvement to represent to the Governor that great care was necessary in the selection of regimental surgeons. Shortly after his conversation with these gentlemen, Gov. Andrew appointed the body known as the Medical Commission to act as a board of consultation and a kind of general committee on army medical affairs. The Commission consisted of Drs. George Hayward,* S. D. Townsend,* John Ware,* S. G. Howe, J. Mason Warren,* Samuel Cabot, Jr., R. M. Hodges, George H. Lyman, and Wm. J. Dale, now Surgeon-General of Massachusetts. The following were subsequently added: Drs. George H. Gay, S. L. Abbot, John C. Dalton,* R. W. Hooper. After the war, Dr. A. P. Hooker,* in virtue of his office of Assistant Surgeon-General, became a member of the commission. This body labored zealously and efficiently at every kind of work coming within its province, and, by the authority of the Secretary of War, in addition to its other duties, discharged those of a board of examiners of medical candidates for army positions. The candidates were subjected to a rigid examination, and good evidence of respectable professional standing, as well as of moral character, was required. The Commission had its origin under exceptional circumstances, and did its duty nobly; but, with the return of peace, it became somewhat of an anomaly, and it is now eminently proper that it should be dissolved, but not without the thanks of the Commonwealth.

Drs. Joshua B. Treadwell, B. Joy Jeffries and Edward J. Forster are now appointed medical examiners, in accordance with an Act providing that candidates for the militia shall be examined by a board of militia surgeons. The matter is not without its importance, for, though, as we hope, it will be long ere the successful candidates have other professional occupation than to prescribe for diarrhoea during the summer encampment, since in case of war we must depend largely on

* Since deceased.

volunteers, it is essential that the medical department should be found available, and, to be so, it must be composed of competent and respectable men. We approve highly of the composition of the new board, and are sure that the interest and credit of the profession may safely be trusted to it.

COMMONWEALTH OF MASSACHUSETTS.

OFFICE OF SURGEON GENERAL, BOSTON, December 1, 1874.

Circular.

The Medical Commission of Massachusetts, a Board of Examining Surgeons, instituted by the late Governor Andrew, on the order of the Secretary of War, and continued by proper authority to date, for the examination of candidates for the Medical Staff of the Volunteer force of the Commonwealth during the war and since, is hereby relieved from further duty.

His Honor the Lieutenant-Governor and Commander-in-Chief gratefully recognizes the long, honorable and patriotic services of this Board, the more distinguished and to be held in remembrance as its services were voluntary and without pay.

By order of the Commander-in-Chief,

WM. J. DALE,
Surgeon-General.

ADJUTANT GENERAL'S OFFICE, BOSTON, Dec. 1, 1874.

General Orders, No. 23.

The Medical Commission of Massachusetts having been relieved from farther duty, it is hereby ordered that, hereafter, all persons appointed as Surgeons, or Assistant Surgeons, in the Volunteer Militia, shall be examined by a Board of three Medical Officers, for the purposes indicated in Sect. 22, Chap. 320, Acts of 1874. The Board will meet as occasion may require for such examination, and render their report through the Office of the Surgeon-General.

The following-named officers are, upon recommendation of the Surgeon-General, appointed a "Board of Officers" as herein prescribed:—

COL. JOSHUA B. TREADWELL, Asst. Surgeon-General, *President.*

MAJOR B. JOY JEFFRIES, Surgeon 1st Corps of Cadets.

MAJOR EDWARD J. FORSTER, Surgeon 5th Regt. Infantry, *Recorder.*

By order of the Commander-in-Chief,

JAMES A. CUNNINGHAM,
Adjutant-General.

Among the subjects brought forward for discussion before the American Public Health Association, at its recent meeting in Philadelphia, that of hospital-construction occupied a prominent place. Several papers were read, testifying to the increasing interest which this matter has awakened in the minds of physicians and sanitarians. These contributions show that the drift of medical opinion is strongly towards single-story pavilions and small wards. Fortified by statistics of the mortality in large metropolitan hospitals, as compared with that in field-hospitals, barracks and private practice, the advocates of

the reform in hospital-construction have a strong position against those who would perpetuate the system of building piles of masonry, which sacrifice sanitary qualities to architectural display. It is noteworthy that of the five papers read at Philadelphia on this subject, only one was in any degree conservative on the question. Dr. William Pepper declared that the arguments which had been adduced had failed to convince him of the propriety of tearing down many of the large, "palatial" hospitals, or of avoiding the building of similar structures in future, but had only shown him the necessity of remedying certain defects of construction and of repressing certain abuses of administration, such as over-crowding wards, and keeping them constantly occupied. He conceded the utility, however, of having tents or temporary pavilions as out-lying wards of large hospitals, in which to treat such cases as those of erysipelas, gangrene and the contagious fevers.

Assistant Surgeon J. S. Billings, U. S. A., presented a very interesting paper, in which he took a decided position in favor of single-story pavilions, built of inexpensive materials. The essay contained many practical points and suggestions, the fruit of careful study and an extended experience.

It is gratifying to record that the indications of a reform in hospital-construction do not consist of well-conceived theories merely; but that hospital-governments are disposed to apply the practical test of utility. The Massachusetts General Hospital has had two isolated, single-story pavilions under trial for some time, and the results are satisfactory. The extensive Presbyterian Hospital, of Philadelphia, will carry out the scheme with admirably-planned details. The City Hospital, of Boston, in the contemplated additions to its system of pavilions, will also adopt the advanced principles of construction, upon the unanimous endorsement of the Staff of the Hospital. Other institutions will doubtless follow the example of those bold enough to accept the innovations urged by sanitarians, and we may confidently expect an improvement in the death-rates after surgical operations in hospitals, and shall not be content with conditions that necessitate a hospital mortality rightly denominated by Prof. Gross as "frightful."

THE MODE OF ACTION OF THE IODIDE AND BROMIDE OF MERCURY.—In a communication by Professor Bellini, read before the Medico-Physical Society of Florence, and published in *L'Imparziale*, March 2, he points out as the result of his experiments on rabbits, that the iodides and bromides of mercury are converted into double salts in the intestinal canal, and that it is as such double salts that they act. Sulphur and the alkaline hyposulphites paralyze the action of the bromide and iodide of mercury, while richly seasoned diet, milk, the alkaline iodides, bromides and sulphides, and ammonia and its salts, increase their action.—*Edinburgh Medical Journal*, Nov., 1874.

The Hospitals.

BOSTON CITY HOSPITAL.

Service of Drs. Williams, Fildes and Gay.

LAST Friday, Nov. 27th, the surgical operations were as follows:—

1. Amputation of Fingers.
2. Extraction of Cataract.
3. Hare-lip.
4. Re-amputation of Thigh.
5. Staphyloma of Cornea.
6. Hæmorrhoids treated with Galvano-cautery.
7. Ununited Fracture.
8. Removal of contents of Eyeball.

3. The case of hare-lip occurred in an infant five weeks old. The loss of structure involved the lip and palate on one side and the palate alone on the other. Dr. Gay dissected the lip away from the bone, carrying the dissection freely upward and backward. The free margins of the fissure in the lip were then refreshed by cutting from each a narrow strip downward from the nostril, leaving the two attached in place at their lower end and free above. These strips were now inverted so as to hang downward with their fresh surfaces apposed, and the whole extent of the incision was brought together from above downwards and held by silk sutures and an hour-glass shaped piece of adhesive plaster, applied to the cheeks. The pendulous bit of lip, turned down from above, was to be allowed to remain and to shrivel up, forming an artificial tip to the middle line.

4. The primary amputation of the thigh was in consequence of very severe injuries received in a fall from a staging, the patient being a vigorous adult male. The accident occurred last July, and so grave were the lesions that it was thought death must ensue. The patient had been treated in a tent-pavilion, and had recovered. But the flaps of the stump had retracted somewhat, leaving the end of the femoral shaft protuberant and necrosed, and covered by a considerable surface of granulations. The soft tissues of the stump were dissected upward away from the bone, and a portion of the bone was removed.

Dr. Fildes remarked that the ligature around the femoral had just come away, after being a source of irritation and annoyance several months. This part of the history of the case would have been avoided, in his opinion, if, instead of being tied, the artery had been twisted.

7. The patient was a young man, whose radius had been broken in July last. All attempts to secure union of the bones had proved futile. The forearm was considerably deformed by a bowing of the bone upward, and the fractured point admitted of free motion. Dr. Fildes exposed the point of injury by dissecting away the soft parts freely. The periosteum was stripped back and the ends of the bone were sawed off. A hole was drilled through each of the apposed ends, and the parts were then made fast by a copper wire, passed through the bones and twisted.

5. Dr. Williams extracted a semi-solid cataract (the nucleus being firm while the cortical layers were softer) by the method of Liebreich, opening the cornea upwards, with a narrow, straight knife, the upper margin of the incision being opposite the edge of the pupil. The edges of the incision were afterwards apposed by fine silk sutures.

8. An iron-moulder presented himself at Dr. Williams's clinic with an eye whose cornea had sloughed and whose deeper parts were inflamed, in consequence of molten iron having splattered into the patient's face while he was at his work. The pain from the injury was intense. To save the patient from the prolonged suffering attendant on progressive inflammation, Dr. Williams scooped out the contents of the eyeball, leaving the sclera behind as a stump for an artificial eye. This operation was deemed preferable to the entire enucleation of the globe.

Correspondence.

THE MAINE GENERAL HOSPITAL.

PORTLAND, Me., November 25, 1874.

IN June, 1872, there was published in the *JOURNAL* a sketch of the Maine General Hospital, which gave a brief account of the undertaking up to that date, a description of the plan, with illustrations, and a statement of the prospects of the institution. At that time, the walls of the north-eastern pavilion were erected and the roof put on, and the foundations of the central building were laid. It was then hoped that the hospital would be ready for the reception of patients by the summer of 1873; but the work proved more expensive than had been anticipated, the funds ran low, and numerous unforeseen delays occurred which prevented the opening until this month. Now, however, the institution is in running order, and as its progress must be a matter of interest to medical men throughout New England, a few words with regard to it will not be inappropriate.

Though the architect's plan of the hospital embraces an executive building and four pavilions, with the necessary accessory buildings, it was never the intention of the Directors to defer the commencement of its beneficent work until all the buildings were erected and furnished. From the beginning, the design has been to open the doors to the sick as soon as a sufficient portion was finished to permit the various departments of a modern hospital to be put in operation; and then, as necessity required and means allowed, to add pavilions until the whole plan was executed. Accordingly, their efforts have been directed to the completion of the first pavilion, the kitchen and the boiler-house, and these are now in actual use. Any future additions will, therefore, be simply in extension of the work already inaugurated.

The large ward in the second story is devoted to male patients, and the corresponding ward in the third story to females, medical and surgical cases being treated in each. The rooms in the north-eastern wing are used for the purposes contemplated in the original design, as also are the back central rooms on the first floor. For the present, the resident superintendent and his household occupy apartments in the south-west wing, in which also are the offices, dispensary, and so forth; and two of the front central rooms on the first floor are to be used as operating rooms, the other two as small wards. This, however, is only a temporary arrangement, and rooms are already being fitted up in the central building, which is entirely enclosed, for the better accommodation of the executive department. The heating, ventilating, cooking and laundry apparatus are of the most approved patterns, and give promise of fully meeting the requirements of the Hospital. As at present arranged, there are accommodations for about sixty patients, and the indications are that all available space will soon be occupied.

The medical officers are as follows:—

Consulting Physicians and Surgeons.—Drs. John T. Gilman, William Wood, Hiram H. Hill, Thomas A. Foster, Charles E. Swan, Theodore H. Jewett.

Visiting Physicians.—Drs. Israel T. Dana, Horatio N. Small, George F. French, Augustus S. Thayer.

Visiting Surgeons.—Drs. Samuel H. Tewksbury, Wm. Warren Greene, Seth C. Gordon, Stephen H. Weeks.

Resident Physician and Superintendent.—Dr. Charles O. Hunt.

Pathologist.—Dr. Frederic H. Gerrish.

The ceremonies of dedication took place on the afternoon of Thursday, the 22d of October. The great ward in the second story was filled with a very large audience, composed in great part of ladies, who from the first have manifested the liveliest interest in the enterprise, and have ever been active in promoting its advancement. Many prominent physicians from various parts of the State, and other gentlemen of note in different walks of life, were present.

Mr. John B. Brown, the President of the Corporation, presided. The Rev. Thomas Hill, D.D., of the First Unitarian Church, and ex-President of Harvard University, offered the prayer of dedication. A dedicatory hymn, composed for the occasion by the Rev. Samuel Longfellow, with music by Herman Kotzschmar, was sung by a select choir. Then the Governor of the State, Nelson Dingley, Jr., of Lewiston, pronounced the oration. After congratulating his hearers on the prosperous condition of the Hospital, and briefly reviewing the main points in its history, he spoke of the vast advantage which it is destined to be, not only to those whose health is restored within its walls, but also to the medical profession, whose members would here learn the most useful lessons, by practising which they would benefit the entire community. He dwelt particularly upon the refining and elevating influence of a participation in benevolent ministrations, and the strengthening of human ties which make free institutions possible.

Speeches were then made by President Joshua L. Chamberlain, of Bowdoin College, representing the faculty of the Medical School of Maine, by the Rev. Dr. Shailer, of the First Baptist Church, the Rev. Mr. Jones, of the Chestnut Street Methodist Church, the Rev. Mr. Gibbs, of the Congress Square Universalist Church, and by ex-Governor Washburn. The exercises, which were throughout of a most interesting and impressive character, were closed by the singing of an original hymn.

The total amount of money received thus far by the Hospital is in the region of one hundred and thirty thousand dollars. Of this sum, forty-five thousand dollars have come from the State—twenty thousand by a legislative appropriation in 1870, and twenty-five thousand in 1874. Nearly forty thousand dollars were raised by a fair in this city in June of last year, and the remainder has been contributed by private individuals, for the most part by citizens of Portland. A little money remains in the treasury, with which to begin active operations; and the managers rely upon the liberality of the charitable people of the State for the funds which are needed to sustain the Hospital in such a condition as will be a credit to their intelligence and benevolence.

GAMMA.

Obituary.

EDWARD B. PEIRSON, M.D.

DR. EDWARD B. PEIRSON, of Salem, died Nov. 18th, in the fifty-eighth year of his age. He graduated at Harvard in 1840, and, four years later, took the medical degree of the same institution. He was an excellent physician, and universally respected. At his death, he was President of the Essex South District Medical Society.

At a special meeting of that Society, held on Saturday, Nov. 21, the following resolutions were unanimously adopted:—

WHEREAS, We, the members of the Essex South District Medical Society, at a special meeting now convened, have received the announcement of the death of our honored and dearly loved associate, Dr. Edward B. Peirson—at the time of his death and for several years previous thereto President of this Society—therefore

Resolved, That we mourn to-day the loss to the community and to ourselves, not only of a skilful physician and surgeon of large and ripe experience, but also of a personal friend of generous sympathies and great kindness, who has to a remarkable degree won our esteem and affection.

That with a modest estimate of his own acquirements and powers, his counsels were deservedly highly valued by the physicians of Essex County, and his help was sought with confidence in emergencies.

That we are deeply indebted to him for his services, always cheerfully and promptly rendered for the general welfare of the medical profession, and for the good judgment and courtesy with which he presided at our meetings.

That the younger members of our profession have abundant reason to speak gratefully of his timely words of encouragement, and of his practical sympathy for them during their novitiate, expressed by helps and opportunities he generously offered to them.

That by his catholicity of spirit, warm-hearted generosity and considerate regard for others, he contributed largely to cultivate and maintain that spirit of cordial sympathy and co-operation which exists to a rare degree among the members of the medical profession in our city.

That we recall with gratitude his patriotic labors for the relief of the wounded at Fredericksburg after the battle in the Wilderness. And we remember with sorrow that it was during this self-sacrificing service that he contracted disease which first permanently weakened his naturally vigorous constitution and at last added his name to the number of those who, during our late civil war, secured our national life by yielding up their own.

Resolved, That we cannot do otherwise than hold him in long and affectionate remembrance, and that we do hereby assure his widow and children and surviving relatives of our deep sympathy for them in this irreparable loss, and of our prayers that God will sustain and comfort them in their great sorrow.

Resolved, That a copy of these resolutions be transmitted to the family, the city press, and the Boston Medical and Surgical Journal.

Medical Miscellany.

A WARNING TO DOCTORS is issued by the *San Francisco News Letter*, which announces its intention in future of publishing after each death-notice the name of the attending physician.

THE EDINBURGH MEDICAL JOURNAL, of November, 1874, contains the following, in a notice of Dr. Buckingham's address on "The Mutual Relations of Druggists and Physicians:" "This is a very able 'address,' and contains much sound and practical advice, both to druggists and physicians, which we on this side of the Atlantic would do well to ponder, and, what is more important, act up to."

PRIZES AWARDED.—Five works (four German and one English) entered into competition for the prize offered by the German Empress and Queen of Prussia for the best handbook on technical war-surgery. At the suggestion of the prize judges, it was ordered that the prize of 2,000 thalers should be divided, and 1,000 thalers were awarded to Dr. Frederick Esmarch, Professor at Kiel, and 500 thalers each were given to Surgeon-Major G. A. Porter, of England, and to Dr. Joseph Landsberger, of Posen.

THE *Canada Medical and Surgical Journal*, referring to the fact that honorable distinctions have been conferred by the Queen upon several of the medical profession in England, asks that the claims of the profession in Canada may be considered in the distribution of imperial honors, and suggests that the venerable Dr. George W. Campbell, Dean of the Faculty of Medicine in McGill University, and the father of surgery in Canada, would be a worthy recipient.

THE NEW GLASGOW INFIRMARY is to have, when completed, 350 beds. The grounds cover about twelve acres, and the cost will be about £100,000. Of the eight large wards ready for use, one-half will be assigned to medical, and one-half to surgical cases. There will be from fourteen to eighteen beds in each ward, with a breathing-space of 1575 cubic feet per bed. There will be a ward for skin diseases, to which medicated baths of all kinds will be attached. The surgical theatre will have seats for three hundred students. Drs. W. T. Gairdner and McCall Anderson have been appointed physicians, and Drs. McLeod and George Buchanan, surgeons.

ANNOUNCEMENT.

THE undersigned, Proprietors and Publishers of the BOSTON MEDICAL AND SURGICAL JOURNAL, hereby give notice that they have transferred to the present Editorial Managers of the JOURNAL all their right and interest in its future publication, to take effect after the close of the current volume, Dec. 31. The JOURNAL will, after the time mentioned, be issued by the well-known firm of H. O. Houghton & Co., No. 219 Washington Street. It is unnecessary here to allude to the causes which have led to this change, but it is proper to say that it has been effected in a manner satisfactory to both parties, and that the present publishers have full confidence in the intention and ability of their successors so to continue the work as to merit, in an undiminished degree, the support which it has so long in their hands received from the medical profession. This transfer will not affect the unsettled accounts of subscribers and others with the undersigned, to whom all moneys due to the end of the year are requested to be sent, and bills for the same are enclosed in this number. Subscriptions already received for the next year will be passed over to the new Publishers; but all hereafter intended for that year may be sent directly to them.

December 3, 1874.

DAVID CLAPP & SON.

NOTES AND QUERIES.

"WUNCEM" is requested to send his name and address.—Eds.

THE WOLF IN SHEEP'S CLOTHING.—In an inland town of California is an individual who claims to have a secret cure for diphtheria, to the sale of which he devotes his energies. This man has lately become religious [?]. At a church meeting, he is reported to have made a speech as follows:—"I have made up my mind to give my property to the service of the Lord. I have several thousand dollars in money, all of which I bestow on the church. I have some fine blooded stock, especially some Black Hawk horses, all of which I give to the church. I have also a lot of grain and farm produce, which in like manner I bestow on the church. There is but one thing in all my possessions which I reserve for myself, and that is my celebrated medicine for the cure of diphtheria, which I will continue to sell as heretofore for the moderate price of two dollars a bottle."—*Pacific Medical and Surgical Journal*.

They have a trick in Boston worth two of that; it is to treat disease, at a certain "Home," by "prayer and the judicious use of medicine."

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending November 21, 1874.

Boston, 145; Worcester, 15; Lowell, 19; Milford, 2; Chelsea, 6; Cambridge, 16; Salem, 8; Lawrence, 10; Springfield, 9; Lynn, 12; Fitchburg, 5; Taunton, 4; Newburyport, 5; Fall River, 14; Haverhill, 7; Holyoke, 3. Total, 289.

Prevalent Diseases.—Consumption, 50; pneumonia, 32; scarlet fever, 14; typhoid fever, 6; measles, 6; croup, 6; diphtheria, 5.

CHAS. F. FOLSOM, M.D.

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 28, 149. Males, 71; females, 78. Accident, 4; apoplexy, 2; anæmia, 1; inflammation of the bowels, 1; bronchitis, 7; inflammation of the brain, 2; disease of the brain, 3; cancer, 3; consumption, 35; convulsions, 6; croup, 1; debility, 5; dropsy, 2; dropsy of the brain, 3; dysentery, 1; epilepsy, 1; scarlet fever, 4; typhoid fever, 4; bilious fever, 1; gangrene, 1; gastritis, 1; disease of the heart, 7; hernia, 1; homicide, 1; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; congestion of the lungs, 3; inflammation of the lungs, 17; marasmus, 6; measles, 2; metritis, 1; malformations, 1; old age, 4; peritonitis, 3; puerperal disease, 2; rheumatism, 1; scalded, 1; suicide, 1; caries of the spine, 1; thrush, 1; tabes mesenterica, 1; whooping cough, 1; unknown, 1.

Under 5 years of age, 55; between 5 and 20 years, 15; between 20 and 40 years, 38; between 40 and 60 years, 25; over 60 years, 16. Born in the United States, 100; Ireland 34; other places, 16.

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BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, DECEMBER 10, 1874.

[No. 24.]

Original Communications.

A CASE OF OVARIOTOMY.

By GEORGE HOLMES BIXBY, M.D., of Boston.

THROUGH the kindness of Prof. D. H. Storer, on the eighteenth of October, 1872, I was called to see Mrs. C., who was suffering from an abdominal tumor. The patient was a native of Germany. Menstruation first appeared at fifteen, recurred every four weeks during four months, then ceased, but reappeared three months later. From this time, the catamenia were normal. She was married at twenty-four, gave birth twice, the first ten months after marriage, the second two years after the first. During the first months of the last pregnancy, the abdomen seemed unusually large; in fact, the patient declared she was larger than at full term in the former pregnancy. At the end of gestation, the abdomen was of a most unusual form, and suggested the possibility of the existence of twins. From the patient's intelligent description of her case, I learned that motion was felt immediately above the pubes, and that another tumor, apparently distinct from the uterus, occupied the space immediately below the diaphragm. This condition occasioned great discomfort, especially in the last stages of pregnancy. Finally, labor commenced at four, P.M., by regular pains, and, during the night, a vigorous child, weighing eight pounds, was born.

After confinement, the abdomen was but slightly diminished in size, the upper tumor having assumed a lower position. On the seventh day following confinement, the patient became feverish, the abdomen enormously distended, tympanitic and sensitive, even to the weight of the bed clothing. The tenderness was particularly marked in the vicinity of the umbilicus. From these acute symptoms, she recovered in the course of ten days, but a tumor of considerable size remained, for which she sought medical advice at the Massachusetts General Hospital. August 18th, she was admitted at the Hospital, and was subsequently tapped by Dr. Hodges. The fluid discharged was characteristic of cystic disease of the ovary. After thirteen days in the hospital, she was discharged, relieved. October 1st, the menses returned, it being the first time since her confinement in June. From this date until March, 1872, a period of three years and four months, the menses were perfectly regular, there was no evidence of a return of the tumor, and in other respects she enjoyed excellent health. Early in February, 1872, a slight fulness was evident in the left ovarian region, and, later, she experienced a number of chills. The abdomen now began to enlarge rapidly, so much so that, on account of the great inconvenience it occasioned, on the 31st of March, she sought the advice of Dr.

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French, of Malden. Between that date and August 16th, the patient was tapped twice by Dr. French. On both occasions, the fluid was of a dark brown color. A severe reaction, threatening the patient's life, followed the last operation, since which she has been confined to her bed.

At the time of my first visit, October 18th, 1872, her emaciation was general and extreme; a cold perspiration covered the face, the features were pinched, yet there was a clearness of the eye that denoted latent strength. The abdomen was highly distended, of a peculiar, elongated form, and measured thirty-six inches in circumference. There was no œdema, either of the abdominal walls, pudenda or extremities. Respiration was labored, at intervals interrupted by a short, spasmodic cough; the heart's action was quick and feeble. Percussion elicited an unbroken wave of fluctuation in all parts of the abdomen; the flanks were tympanitic. Vaginal exploration revealed the cervix uteri, a normal uterine cavity of two and a half inches, the organ ante- and latero-verted to the right. Bi-manual exploration gave evidence of fluctuation in Douglass's fossa, more distinct at the left. Diagnosis, cystic disease of the left ovary.

Notwithstanding these apparently unfavorable conditions, I offered the patient an operation as the last chance for life; this offer, after four days' consideration, she resolutely accepted.

October 23d, in the presence of Drs. Wheeler, of Chelsea, Warner, of Boston, Pinkham, of Lynn, Keniston, of Cambridgeport, and Hanscom, of Somerville, the operation was undertaken. For want of a "Crosby bed," a single wooden cot was employed. A cathartic, taken the night before, having failed to operate, a copious injection was given immediately before the operation, and was followed by a free dejection. False teeth removed, and the urine drawn, chloroform was administered by Dr. Warner. I made my incision a little to the left of the *linea alba*. Owing to the thinness of the abdominal walls, from the great distention of the abdomen, while attempting to divide layer by layer, a small opening was accidentally made in the cyst, which gave exit to a thin, purulent fluid. The adhesions were so firm, anteriorly, that it was impossible to distinguish, much less to separate their attachments to the peritoneum. Deferring farther manipulations in this direction, the evacuation of the cyst was undertaken with a large trocar, and completed by a free opening. The contents consisted of fifty pounds of a purulent, curdy fluid. Returning now to the incision, an attempt was made with the finger, and afterwards with a director, to separate the adhesions. This failing, in order to facilitate further exploration, the opening into the cyst was enlarged. Passing the entire hand into the cavity of the cyst, I detected, at the bottom, a hard, unyielding body, which resembled the uterus. The impression became more marked when I found it to be pyriform, and its inferior extremity attached to a broad band, not unlike the vagina in form. To clear up this point, the mass was raised, while Dr. Warner examined per vaginam, and established the fact that the vagina and uterus were in normal position, and independent of the above. When raising the pear-shaped body, I noticed that the cyst walls were partially inverted in folds. From this fact, it was evident that, at these parts, at least, there could be no adhesions. Dr. Pinkham came to our rescue with a most timely suggestion, namely, to tear

through one of the unattached folds, as near the incision as possible, and enucleate from behind.

I proceeded at once to put this plan into execution. I attacked the cyst wall in one of these folds, four inches from the incision, and tore through it with a blunt instrument. A single finger in the rent detected a free space immediately behind, but was soon arrested by strong, fibrous bands. Drs. Warner and Wheeler now assisting, with three pairs of hands in the abdomen, enucleation was vigorously prosecuted. From simple adhesions to firm, unyielding, fibrous bands, now with a single finger, then with all the fingers, we continued, breaking or tearing whatever opposed, until, after nearly thirty minutes of hard work, the last adhesion was reached and separated, and the sac, attached by a slender pedicle, raised from the abdominal cavity. These complicated manipulations involving the separation of adhesions from, at least, one-third of the surface of the cyst, were followed by very little hæmorrhage. Owing to the disturbed relations of the parts, it was impossible to ascertain, definitely, the seat of these extensive adhesions. The sac now being raised, and the pedicle spread out, so that, in a stooping posture, it was brought between myself and the light, the location of every important vessel was readily seen and avoided, when transfixing it with two preventer pins. The clamp was now applied upon the pins, the cyst removed with scissors, and the pedicle reposed in the lower angle of the wound. I now proceeded to wash out the abdominal and pelvic cavities with a solution of carbolic acid and boiled water (a fountain syringe being used for the purpose), the fluid being allowed to enter until it overflowed and escaped as clear as it entered. To insure complete evacuation, the patient was turned almost upon the face, and the abdominal cavity dried with soft sponges until all oozing had ceased. The wound was now brought together by three silver sutures, which included the peritoneum, the last left untwisted for the purpose of drainage. The surface of the abdomen, having been washed and dried, was protected by interlacing strips of adhesive plaster, according to the method of Prof. White, of Buffalo. During the entire operation, and up to six hours after, there was not the slightest sign of nausea. The patient was now covered with sufficient clothing, and left with the nurse, with instruction to give nothing by the mouth, for the first four hours, but brandy and water; subsequent to that time, milk and flour porridge. In case of pain, an opiate in the form of suppository.

Oct. 24th.—Twenty-four hours after the operation. A quiet night; frequent naps the entire night. 1, A.M., complained of a little discomfort in the abdomen, scarcely amounting to pain, for which a single suppository, containing one grain of opium and a quarter of a grain of extract of belladonna, was used. Pulse ninety. Urine clear; ten ounces passed during the night. Nourishment consists of milk and flour porridge every hour, with brandy and water, alternately.

Oct. 25th.—Forty-eight hours after the operation. Pulse ninety; tongue moist; abdomen flat; urine free, good color, voided voluntarily.

Oct. 26th.—Pulse ninety; urine free; tongue moist; abdomen flat. A pool of ichorous matter is noticed near the clamp; upon examination, it is found to proceed from the decomposing extremity of the pedicle, and not from the abdominal cavity, as was feared.

Oct. 27th.—A fair night, but is this morning quite restless. Pulse one hundred; skin hot and dry; urine less free, and of darker color; slight tympanites along the transverse colon. Ordered tincture of aconite, one drop every two hours.

Oct. 28th.—More comfortable; tongue moist; nourishment taken and relished. Urine free and good color; clamp removed, and pedicle left hanging by preventer pins.

Oct. 29th.—Complains of tension along the region of the descending colon; ordered five drops of oil of turpentine every three hours during the day. In other respects, doing well.

Oct. 30th.—Turpentine did excellent service; tympany entirely relieved; removed pins; slough thrown off from pedicle.

Nov. 3d.—Eleven days after the operation. Everything having progressed favorably during the past few days, no notes were taken. Portions of adhesive plaster and stitches removed; wound entirely healed, save at a point near umbilicus; the rest of the plaster to be left until after use of cathartic.

Nov. 5th.—Pulse eighty; urine free, and good color; appetite excellent; sleep refreshing; abdomen flat. Ordered a mild laxative, to be taken at night.

Nov. 6th.—Dr. Wheeler saw the patient with me. The aperient operated quietly, but thoroughly. Upon removal of the remainder of the plaster about the abdomen, we were surprised to find the tissue around the umbilicus thickened, and at one point decided evidences of fluctuation. Ordered poultices.

Nov. 7th.—Noticed a fistulous opening leading from the umbilicus to the upper angle of the wound. At the end of six days, fistula healed; induration subsided. The subsequent treatment of the case was now entrusted to the nurse, to be conducted upon general principles.

Dec. 8th.—I found the patient sitting up, able to walk about the apartment, and attend to minor duties. Upon examination of the abdomen, found the wound entirely healed, the cicatrix contracted down to an inch in length, the extremity of the pedicle sunken below the surface, not leaving as much as a trace of the usual navel-form depression after the use of the clamp. The abdomen bears quite rough manipulating without the least discomfort.

Jan. 1st.—Two months after the operation, the patient wrote me that she was quite well, and attending to all her duties.

I learned, later, that menstruation returned in February, and continued regularly. At the commencement of each return of the catamenia, a slight, muco-sanguineous discharge appeared at the cicatrix, which lasted but a few hours. A letter, dated October 23d, 1874, two years after the operation, informs me that menstruation had continued regularly until May last, and in September foetal movements were unmistakable. Judging from the experience of Mr. Spencer Wells,* I predict for the patient a normal confinement.

For the happy termination of this remarkable case, not a little of the credit is due to the faithful care of the accomplished ovariectomy nurse, Mrs. S. S. Cleasby, of Boston.

* Diseases of the Ovaries, page 474.

A SCRAP OF FAMILY HISTORY. A CONTRIBUTION TO THE STUDY OF CONSUMPTION.

By J. O. WEBSTER, M.D., of Lynn.

THOMAS S. was born in 1750, of a remarkably long-lived family, in which there was no trace of tubercular or other hereditary disease. He married, in 1779, Priscilla C., who was born in 1749, whose family was equally free from taint. Many members of both families lived to the age of 90. He died at the age of 82, from failure of the digestive function, probably dependent upon the excessive use of tobacco, all the organs, except his stomach, being still in perfect vigor. She died at 87, from old age.

They had six children :

1. Rebecca, who died at the age of 90, from old age.
2. Mary, died, aged 24, of consumption.
3. Harriet, died at 25, of consumption.
4. Thomas, who had tubercular disease of lungs for years, and died at 59, of pneumonia.

5. Daniel, now living, aged 86.

6. Samuel, died young of some chronic lung disease, probably consumption.

Here we have the problem of how to account for the development of consumption in this family, where we can find no hereditary taint, and where two of the children have escaped and attained to equal longevity with their ancestors. Let us look at their surroundings, and see if we can find the solution.

Thomas S. was a tanner, and settled, in 1775, on the Kennebec River, at Augusta. His house was but four or five rods from the water of the river. Here he lived until after the birth of the fifth child, when he removed to Unity, Maine, and established himself in immediate proximity to a pond of fresh water. Here, the sixth child was born. After a few years, he again removed, this time to the "Outlet" of China Pond, in Vassalboro'. Here he lived until his children were grown and had mostly left home.

Thus it appears that this family, during the childhood and youth of its children, lived in very close proximity to bodies of fresh water. To my mind, it seems that in this fact lies the solution of our problem, and that this is a very striking instance of the same kind as many already collected by Dr. Bowditch.

THE SANITARY CONDITION OF JERUSALEM is reported to be deplorable. In a recent paper, read by Mr. Cooper before the Social Science Congress at Glasgow, it was stated that bad water, resulting from the filth and rubbish accumulated for centuries, renders the city one of the most unhealthy in the world. The cisterns and ducts are choked with sewage, and the mixture forms the daily beverage for thousands. Towards autumn, a sort of miasma sets in, and the febrile season begins. The Jewish population in 1865 was estimated at 9,000, and during a period of twelve months 5,000 cases of sickness were attended at their own hospital, and 8,000 at that of the Protestant Mission. So that if the whole of the inhabitants were not ill, the great majority of them must have been twice at hospital during the year. The Baroness Burdett Coutts offered to procure a better water supply, but the Moslem Government would not allow her to appoint an engineer to carry on the work.—*The Lancet*.

Progress in Medicine.

REPORT ON DERMATOLOGY.

By JAMES C. WHITE, M.D.

(Concluded from page 543.)

Scleroderma and its Relation to the Lymph System (*Vierteljahresschrift für Dermat. und Syph.*, 1 Jahrg., 1 Heft, from *Deutsch. Arch. f. klin. Med.*)—Heller reports the results of the dissection of a case of scleroderma, which proved fatal after a year's duration, under symptoms of general anæmia and ascites. There were found extensive scleroderma of the face, neck, chest and upper abdominal region; fibroid nodules and lymphangiectases in the subcutaneous tissue; obliteration of the ductus thoracicus; multiple diffuse and miliary new-growths in the heart, muscles, serous membranes, kidneys and other parts; œdema of the lungs; incipient cirrhosis of the liver; induration of the spleen; hyperplasy of the uterus; hypertrophy of the walls of the stomach; induration of Peyer's patches; and atrophy of the mesentery.

A microscopic examination of the nodules from these various sources showed that they consisted of firm, fibrous tissue and a peculiar cell infiltration. They interrupted the course of the lymph-vessels, with which the collections of cells seemed intimately connected, and upon the serous membranes the new-growths showed a similar relation to the lymphangiectases.

Heller concludes, as the result of his investigations, that scleroderma is an affection occurring in the lymph system, and that, in this case, its starting-point was the ductus thoracicus, as this was most changed. Through disturbances in the lymph-vessels, an escape of lymph is caused, which leads to the connective new-formation of fibrous tissue, analogous to the process in elephantiasis Arabum.

Leprosy.—The recent report, by Dr. Carter, on Leprosy and Leper Asylums in Norway is reviewed in the September number of the *Edinburgh Journal*. Dr. Carter, in his connection with the Bombay Army, had made extensive study of the disease in the East (see *Dermatological Report*, June, 1873), and was, therefore, well fitted for these later observations. He states that, although the forms in Norway are identical with those in Bombay, their relative ratios are different. In Norway, the tubercular is 70, the anæsthetic 30 per cent. of the whole; in Bombay, compared with Norway, the anæsthetic form is twice as frequent. The tubercular form in Norway is of shorter duration, and more characterized by febrile exacerbations, caused, it is believed, by the reabsorption of softened leprous matter from the skin-tubercles and its re-deposit in internal organs. Dr. Carter has been led to the conclusion that leprosy is not caused and maintained by endemic and defective hygienic conditions, but mainly by hereditary taint; and that the proper way to eradicate it is the rigid segregation in asylums of possible parents of diseased offspring, by which the propagation of the disease may be checked.

In the same number of the *Journal* may be found an account of the treatment of leprosy by gurjun oil, as reported by Dr. Dougall, medical

officer at Port Blair, Andaman Islands. He found 24 leprous convicts on his arrival there, most of them exceedingly aggravated and advanced cases; the food was insufficient, and the hygienic condition not good. The treatment, under which they had been, seemed to be without effect, and other methods, ordinarily employed, impracticable. It occurred to him, therefore, to try the oleo-resinous substance, obtained there in abundance from the *Dipterocarpus lævis* and other trees of allied genera, known in commerce as gurjun oil. This is a sticky substance, and it was mixed with various substances: cocoanut-oil, castor-oil, carbonate of soda. After rubbing with these preparations for some time, it was discovered that lime-water, three parts, mixed with one part of the oil, by violent agitation, formed a substance of the consistence of Indian butter, to which the name of gurjun ointment was given. It can be applied to the healthy skin without pain or blistering, and has no bad smell. With a smaller quantity of lime-water, it makes an excellent emulsion. The plan of treatment pursued was as follows: The lepers wash themselves early in the morning in a stream, using dry earth as a detergent; they then return to the ward, and each man is served with four drachms of wood-oil and lime-water in equal proportions; a quantity of gurjun ointment is then given them, with which they are required to rub themselves for two hours. At three in the afternoon, they get their second dose of the gurjun emulsion internally, and then two hours more of rubbing with the ointment is practised. Thus four hours daily rubbing with the ointment produces no vesication on the skin, and causes no pain. The emulsion is not disagreeable to the taste, and has, at first, no influence upon the digestive system, but it stimulates the appetite, and acts as a mild laxative; in larger doses, it acts as a powerful diuretic and evacuant.

The change on the tubercles is very marked. After some time, they seem to become more movable, and to be softer at the base than at the apex. The softening process gradually approaches the surface, and at last a watery bleb forms, which bursts. This process may take place two or three times, until the tubercle is quite reduced in size. No change was made in the diet of the lepers, and the results obtained after a year's trial of the method seems to be fairly due to this. Great improvement has followed in *all* the cases. Numbness has diminished, sores have healed up, swellings have disappeared, and patients who could only lie in helpless uselessness in a corner waiting for death, are proud of being again able to work, when such a hope had been abandoned long ago.

Treatment of Nævi.—Ragaine (*Jahresbericht der Gesamt. Med.*, 1874, from *Journal de Méd. de Bruxelles*) reports seven cases of erectile nævi cured by vaccination. The operation may be performed about the circumference of the tumors, or directly upon their surface. It is important that the points of insertion should be made as far apart as $1\frac{1}{2}$ cm., and the best instrument for the purpose is the insect needle, as so great hæmorrhage follows the use of the lancet as to wash away the vaccine matter. To prevent such a result, it is better to allow the needle to remain in the puncture for a few moments. The size of the tumor is never a counterindication to the employment of this method. The destruction of the abnormal growth is supposed to be effected by the adhesive inflammation produced in the lower parts of the skin by the process of vaccination.

De Smet (*Jahresber.* from *La Presse Méd. Belge.*) recommends another method, successfully employed by him in a superficial, vascular nævus just below the right eye. A cork, of the shape and size of the growth, was perforated by fifteen needles, the points of which were allowed to project 2 mm. These were dipped in croton oil, and plunged quickly into the nævus. The operation was for a moment painful, but left behind it only a slight degree of burning. On the following day, there were swelling and vesicles, but the child did not complain of pain. A crust formed, beneath which the effect of the treatment could be partly seen; a large portion of the vessels were no more to be seen, and the others contained little coagula. Croton oil was lightly painted over the wound, and again in three days. The result was perfect; the spot had disappeared, the vessels were obliterated, and not a trace of the affection remained.

The advantages of this method are that no disfiguring scar is produced, of great importance in nævi of the face and neck; that the pain is slight, and the action rapid. De Smet especially recommends it when the nævi are superficial, and the child has already been vaccinated.

The Anti-herpetic Powder of Araroba (*Annales de Derm. et de Syph.*, Tôme v. No. 6, from *Archives de Médecine Navale*).—Herpes circinatus (ringworm), according to M. Palasne-Champeaux, is very frequent in Cochín China, and exhibits there an unusual degree of severity and tenacity. Among the various methods of treatment employed against it, there is only one which he has always found successful, the application of a powder called Poh-Baia, or powder of Bahia. According to his researches, this consists of the powder of *araroba*, furnished by some unknown Brazilian tree, which is mixed with powdered charcoal before using. The *araroba* reaches Bahia in pieces evidently belonging to a tree of considerable size, and of a reddish-yellow color, like that of rhubarb.

The results obtained by him with this remedy were very rapid and complete, employed either against ringworm or psoriasis, three or four days being sufficient to make the patches disappear. It is employed in the following manner: After the parts are rubbed with strong vinegar, the powder is applied to them by means of a small tuft of cotton. (The action of acetic acid alone upon these lesions must not be left out of the question.)

Is Eczema a Mycosis?—Weisflog (*Beiträge zur Kenntniss der Pilzeinwanderung auf die menschliche Haut* from *Vierteljahr. für Dermat. und Syph.*, 1 Jahrg., 1 Heft), who, like Hallier, finds a mould in nearly everything, believing in the parasitic nature of impetigo contagiosa, as well as in its generally accepted relation to eczema, has made observations upon the crusts, scales, and other morbid products of the latter affection. After several days' manipulation, he thinks he finds in them fungoid growths, as might be found in nearly all organic substances under similar conditions. Hallier is, of course, ready with a name and a place for the newly-discovered mould. The investigations are not reliable, and should in no way affect present opinions concerning the etiology of eczema.

Alopecia areata.—Malassez has been investigating the question of the parasitic nature of this disease, and publishes (in the March and May numbers of the *Archives de Physiologie*) the results of his obser-

vations, which, according to the *Edinburgh Medical Journal* of July, from which the following account is taken, "illustrate in a striking manner the danger of dogmatizing from negative results." He examined the scales scratched from the epidermis of the bald patches, where the fungoid spores were found most easily. Grease was removed by ether or absolute alcohol. He finds very small, spherical spores, but no mycelium. The fungus occupies the most superficial parts of the horny layer of the epidermis, and is only met with accidentally on the hairs.

*Treatment of Alopecia areata (Porrigo decalvans) by the application of Liqueur Ammoniacæ.**—Dr. Duckworth (*Saint Bartholomew's Hospital Reports*, Vol. ix.) reports a large number of cases, which he has recently treated in the following manner: The whole scalp was rubbed with a small flannel mop, soaked in a strong solution of ammonia—so strong that neither the eyes nor the nose of the operator could bear it. The scalp appeared insensible to it. No pain, no inflammatory redness occurred. This was repeated daily, until the scalp became sensitive, when its strength was reduced. He concludes:—

That the local treatment by strong solution of ammonia is apparently more satisfactory than that of oil of turpentine.

That the renewal of the hair-forming function is probably hastened more by ammonia than by any other local application.

That turpentine appears to be only second in importance as a topical agent.

That the ammonia treatment is, on the whole, less universally applicable in these cases than turpentine.

That in certain cases—a decided minority—the ammonia treatment cannot be borne, because of its severity, producing vesication. Turpentine never produces these effects, and is a less formidable agent in all respects.

That ammonia may, therefore, be regarded as a valuable local application in these cases.

Gangrene produced by Carbolic Acid.—Poncet (*Bulletin Gen. de Therap. in Vierteljahr. für Dermat. und Syph.*, 1 Jahrg., 1 Heft) describes the case of a girl, 13 years old, who had received a splinter under the nail of her forefinger. The part was immersed in carbolic acid for a moment, and then bound up in a compress moistened in the same solution. Eight days afterwards, the finger was found to be gangrenous for one-half its length. In consequence of this, Ollier, of Lyons, undertook some experiments upon rabbits and hens. When their limbs were immersed from three to five minutes in a concentrated solution of carbolic acid, they mostly died in a few hours, poisoned, but the survivors had gangrene. In order to prevent the fatal results of poisoning, ligatures were placed upon the limbs before immersion, and after this a soaking of five minutes was always enough to produce death of the parts. Ollier subsequently observed a second case of gangrene of the finger after the use of carbolic acid, and he believes that fingers and toes may be amputated in this way without pain and without danger.

Boracic Acid as Dressing.—Prof. Lister made a communication to the Medico-Chirurgical Society of Edinburgh (*Edinburgh Medical Journal*, Sept., 1874) upon a new dressing of this substance in rodent ulcer. Bo-

* See JOURNAL, June 12, 1873.

racic acid, in fine powder, one part; white wax, one part; paraffin, two parts; almond oil, two parts. The ingredients, after being mixed by melting the wax and paraffin, are stirred in a warm mortar till the mass thickens, and then set aside to cool, after which the firm substance is reduced in a cold mortar, in successive portions, to a uniform, soft ointment. This is spread thin on a fine rag, and when the almond-oil leaves it through capillary attraction, a smooth, firm layer remains, consisting of blended wax and paraffin, together with the boracic acid, which comes off the skin without leaving any greasy substance adhering, and does not at all confine the discharge, which is perpetually supplied with a sufficient quantity of the boracic acid to ensure absence of putrefaction, while not preventing cicatrization.

Other gentlemen had used boracic acid, and had also found it an excellent antiseptic and deodorizer. It had been employed mixed with unguentum simplex, one part of the former with two parts of the latter, and in the same proportion with starch and other powders. They had been used with relief in eczema, rupia, bed-sores, and the like.

Mention is also made in the *Journal* of a still better application for such purposes of an ointment like that of Prof. Lister, except that it contains half the quantity of salicylic acid, the antiseptic properties of which have been recently discovered. It is less irritating than the boracic acid.

Bibliographical Notices.

The Medical Use of Alcohol and Stimulants for Women. By JAMES EDMUNDS, M.D., M.R.C.P.L., M.R.C.S., Late Senior Physician to the British Lying-in Hospital, Senior Physician to the London Temperance Hospital. New York: National Temperance Society and Publication House, 58 Reade St. 1874.

THE whole question of the dietetic and long-continued medicinal use of alcoholic liquors is so intimately involved with custom, with prejudice, with appetite and with moral fanaticism, and a really fair discussion calls out such bitterness and bigotry upon both sides, that a truly scientific and popular work upon the subject seems almost an impossibility. The present little book, as may be inferred from the place of publication, is by no means to be considered impartial, and indeed does not pretend to be, but nevertheless clears away a good many side issues and discusses the subject upon its true basis, although ignoring or slighting some important observations.

One would certainly suppose that by this time any one paying attention to the subject would be familiar with the conclusive character of the experiments upon the elimination of alcohol, and no longer state that medical men have not come to a definite conclusion upon the matter. A better established fact is hardly to be found in physiology than that only a very minute part of the alcohol ingested is again eliminated as such, when a small dose is taken, and that, even with a heavily narcotic dose, more is destroyed in the organism than is eliminated as alcohol. The evidence afforded by the smell of the breath and of the cutaneous exhalations, which is spoken of by the author as proving an elimination, is really very fallacious, and, as a quantitative test, utterly worthless. If previous experiments, their own included, had not entirely destroyed the theory of Lallemand, Perrin and Duroy, that all the alcohol ingested is eliminated as such, by the lungs, the skin, and the kidneys, the last one of Anstie and Dupré should have done so, in which an animal was enclosed in an air-tight box (so that *all* excretions could be measured after a long-continued course of alcohol), then killed and the whole body

thoroughly analyzed for it. Only 11.3 grains out of 2,104 grains given could be accounted for by elimination, and only 23.66 were found after death.

The author gives the following very good definition: "A food is that which, being innocent in relation to the tissues of the body, is a digestible or absorbable substance, that can be oxidized in the body and decomposed in such a way as to give up to the body the forces which it contains." He then proceeds to take up the points separately and endeavors to show, by various pathological facts, that alcohol is not innocent in relation to the tissues. Referring to the statistics of life insurance companies in England, he states that the mortality among total abstainers is much less than among moderate drinkers, and also compares the ordinary average mortality of thirteen to sixteen per thousand of the average working classes and agricultural laborers with that of thirty in a thousand among those engaged in the sale and manufacture of intoxicating liquors, and who are assumed, as also lately by Dr. Dickinson, to be their own very good customers. It appears, however, that these facts, as well as the familiar ones in regard to cirrhosis of the liver, chronic gastric catarrh, &c., prove only, what probably no one, and certainly no medical man, would think of denying, that excessive habitual use of alcohol tends to the general deterioration of the tissues. The man who confesses to being a moderate drinker habitually is very likely to be somewhat more. If we may believe the statements which we constantly see in regard to the habits of the English population, there are few men in that country who do not take *some* alcohol in the course of the day, and those who take the least are the ones whom it would be more fair to term moderate drinkers. Dr. Edmunds's own statement would tend to confirm this view. He says:—"I could not go to one house in twenty in England at an ordinary reception, or to a dinner party among my own circle of personal friends, and meet another person who was a total abstainer."

As to the next points, every one admits the eminent absorbability of alcohol, and, as stated above, if there is a well-ascertained fact in the whole range of pharmaco-dynamics, the practically total oxidation of a moderate dose of alcohol is such.

The real turning point is upon the question whether the force evolved by this oxidation is in a form to be utilized as muscular and nervous work or as heat, and whether anything is gained by the substitution of alcohol for the ordinary hydrocarbons, such as starch, sugar and fat, which have in no dose any narcotic effect. This question is to be answered only by observation. As Dr. Edmunds says, under ordinary circumstances alcohol is far from an economical food; that is, supposing the system to be equally ready to use up either of the substances, the same sum of money will buy much more in the form of sugar or starch than in the form of alcohol.

The healthy man, with a normal digestion and a proper supply of food, should say, as did our friend Rip Van Winkle, whose theory was unfortunately so much more correct than his practice, "I tink I'm better widout it." Both experiment and clinical observation prove, however, that alcohol may take the place of a portion of the food. Dr. Hammond's careful experiments upon himself show the beneficial action of alcohol when the supply of food is less than the amount necessary to keep the body at a given weight, neither gaining nor losing; as well as its uselessness, and worse, when the food supply is sufficient for, or in excess of, the needs of the organism. Dr. Anstie has recorded, in his work on Stimulants and Narcotics, several very remarkable instances of life sustained for long periods upon the minimum of food with an abundant supply of alcohol, and it would probably not be difficult, by a little inquiry, to add to them many others as conclusive, even if somewhat less striking.

We can hardly throw aside the great amount of testimony as to the favorable action of alcohol when given in febrile and wasting diseases, and especially its failure, under these circumstances, to produce the usual narcotic effects of large doses, as well as the absence of the more marked evidence of pulmonary and cutaneous elimination.

We agree fully with Dr. Edmunds in his interpretation of the earlier phenomena of intoxication as narcotism and not stimulation. From the first flush upon the face, indicating paralysis of superficial vaso-motor nerves, the activity of the tongue, no longer restrained by timidity, by the fear of talking nonsense, or by decency, through the successive stages in which the higher faculties lose their control over the motor system and over the lower impulses, to deep drunkenness or even death, we have only steps in the same process.

Is there not good reason to suppose, however, that previous to this we have a stage of true stimulation, where a small amount of alcohol is capable of bringing the nervous system up to its full working power, without in the least dulling perception or interfering with the clearness of ideas. We do not find among the writers of Germany, few of whom are total abstainers, any inability to make nice distinctions or any incapacity for severe and exact mental labor. The late Dr. Anstie, whose views have largely inspired the foregoing sentences, was certainly far from wanting in "mental accuracy" or power. The line to be drawn between the stimulant and narcotic dose is indicated not only by the sensations of the partaker, but by other more demonstrable phenomena, such as the flushing from dilated cutaneous vessels, the diuresis from a similar condition in the kidneys, and the presence of a larger proportion (though still very small) of alcohol in the excretions.

For the perfectly healthy man, any dose, or any but the very smallest, is a narcotic. In certain forms of disease, experience shows that even a quantity which would be a very large dose in health has no narcotic effect, and we can hardly doubt that there are intermediate conditions in which alcohol, so far from benumbing the senses or obscuring the intellect, acts simply as material for the production of force, and may be looked upon as a food which requires no digestion, and sets free in a useful form its latent energy.

As we have taken occasion to disagree with a good many of Dr. Edmunds's scientific views, it is no more than fair to remark that we are by no means so far removed from him practically in many points. There can be no doubt that a vast amount of alcohol is needlessly consumed under the plea of health. We freely admit that no alcohol at all is an appropriate dose for a considerable portion of the community, that the remainder would be much better off with much less alcohol, and, also, that milk is a much better diet than beer or porter for the nursing mother.

It is very satisfactory to meet with a professed total abstainer, who is willing to discuss the subject upon the proper ground, and freed from the various shallow sophistries so much employed upon both sides. Dr. Edmunds says, "I do not believe there is any virtue in being a total abstainer." "If you do not see clearly that physiologically the use of alcoholic liquors is a mistake, your total abstinence and self-sacrifice for somebody else's benefit are not worth a rush; and, so far as I can see, total abstinence upon that platform has done nothing but retard the movement." "A man's duty is to take those things if they will help him do his duty to his family, to himself, and to the society in which he moves."

If temperance advocates could only be made to see as clearly as Dr. Edmunds does that religion and conscience can only make us do our duty, and that they have nothing to do with this question until we have determined what our duty is; and if they would only remember that false and unsubstantial physiological arguments do more harm than good to their cause, and can only deceive the ignorant, we should have less absurd temperance legislation, and it is to be hoped a corresponding diminution in the admitted enormous evils of the intemperance which this legislation fails to mitigate. E.

The Drift of Medical Philosophy. An Essay. By D. A. GORTON, M.D. Philadelphia: J. B. Lippincott & Co. 1875. Pp. 70.

It is only by a great effort that we restrain our orthodox pen from running a muck through this farago of nonsense, which is a second and revised edition of a paper read before the New York Homœopathic Medical Society.

But such a course, though it could not fail to make the skilful and unskilful laugh, might justly make the judicious grieve, for our space is needed for better purposes; and, after all, what is to be said of a man who tells us that sulphur is a remedy for sin, original or acquired, and that common salt is a moral prophylactic.

Nature Series. Polarization of Light. By WM. SPOTTISWOODE, F.R.S. London: Macmillan & Co. 1874. Pp. 129.

THIS little work is a valuable addition to the series. It makes the complicated subject which it treats of quite as simple as could be expected. We are not aware that there is anything specially new in it, but known facts and accepted theories are very ably presented.

BOOKS AND PAMPHLETS RECEIVED.

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History of the Conflict between Religion and Science. By John W. Draper, M.D. 1875. Pp. 373. New York: D. Appleton & Co. (From A. Williams & Co.)

Cases of Hysteria, Neurasthenia, &c. (From the Chicago Journal of Nervous and Mental Disease.) 1874. Pp. 14.

The Treatment of Marasmus, Whooping Cough and Debility in Children by Electricity. (From the Detroit Review of Medicine and Pharmacy. 1874. Pp. 7.

THE LOCAL USE OF TANNIN.—Dr. Philip Miall states that, for a number of years, he has employed a concentrated solution of tannin (tannin $\mathfrak{z}\text{ij}$, water $\mathfrak{v}\text{vi}$.) as an astringent topical application. This powerful astringent, which is almost free from irritating properties, is said to form one of the best dressings for wounds, far superior to collodion, and even less irritating than the styptic colloid, which it somewhat resembles. If applied by a brush and allowed to dry, it soon forms a pellicle which excludes the air, and gives ease to pain. It may be applied to almost any form of ulcer, and to wounds after amputation, or other operations, especially when not very deep. It answers well, for instance, after the operation for hare-lip, painted over the pins and threads, in the same way as collodion is sometimes used. For cracked nipples, this solution, diluted with an equal quantity of water, is the best application, and corresponds to the tannin solution commonly used for this purpose. It is also recommended for the purpose of reducing enlarged tonsils, and as a styptic in severe uterine hæmorrhage.—*British Medical Journal*.

Boston Medical and Surgical Journal.BOSTON: THURSDAY, DECEMBER 10, 1874.

AN examination of the Ninety-second Annual Catalogue of the Medical School, which is reprinted from the general catalogue of Harvard University, exhibits very gratifying evidence of the prosperity of the school, and of the success of the new system of education. The number of students seems to be steadily increasing, and is now two hundred, divided as follows: Graduates, 11; third class, 29; second class, 52; first class, 108. It will be seen, on comparison with the catalogue of last year, that there is no longer a group of unclassified students recognized, and that students in single branches, except in the graduates' course, are not now accepted—two important changes. The comparison shows, too, how permanent the connection of the students with the school has become, the names of but four members of the second class of last year failing to appear in the list of the present third class. The standing in general scholarship, too, of the students is perceptibly more elevated from year to year, eighty of the present members of the school having received college degrees before beginning the study of medicine.

The changes in the list of instructors have been few during the year. Dr. Minot has taken the chair of Theory and Practice, made vacant by the resignation of Dr. Shattuck, and the Professorship of Hygiene terminated with the death of Dr. George Derby. Three additional instructors have been appointed, one in histology, chemistry and materia medica, respectively. The whole number of teachers is now thirty. A glance at the tabular views, which exhibit the great amount of instruction given to each class, shows, however, the need of so large a body.

By a new regulation of the General Council of the University, the degree of Master of Arts is now open to graduates of the school, who are also Bachelors of Arts, and who pursue an approved course of study in medicine for at least one year after taking the degree of Doctor of Medicine.

The examination papers in the eleven departments, in which the student is now required to pass before obtaining his degree, and which were used in the last June examination, are published in full, and illustrate the completeness and thoroughness of the education now given in the school. They will be strange reading to those, even, who graduated not more than five years ago.

We trust that this little pamphlet may carry to all parts of our country the information that a systematic and thorough medical education may be obtained in one school, at least, in America.

It is very gratifying to mark the sympathy with which the success of the new system at Harvard is watched in other cities. The old doubts as to the feasibility and propriety of the reform are now dispelled, and the question for other schools resolves itself, as the *Philadelphia Medical Times* implies, into that of "Will it pay to do what is right?" Although Harvard's acknowledged preëminence would be endangered thereby, we most sincerely hope that her example may be followed elsewhere, on account of the great good that would accrue to the profession. In this connection, we would quote some honest and sensible remarks from the *Cincinnati Lancet and Observer*:

"The medical profession of the West need and will have colleges that will give students of medicine equal advantages in their course of study with those to be obtained at Harvard. Even now, Cincinnati and other places in the West have their representatives in Harvard University. Not because those representatives desire to live three years in Boston, or wish to forsake friends at home during that time, or because they think it a good thing to largely add to the expense of their medical education, or that the faculty of Harvard College is composed of superior teachers or more eminent men than those who compose the faculties of a dozen other colleges, or that the clinical advantages in Boston are superior to those offered in other cities; but because of the plan adopted and the thoroughness of the teaching in that institution. We have no special predilection for Boston or Harvard University, but we do say all honor to the men who have had the courage to change the method of instructing medical students that has been pursued in this country for more than a century, recognizing the fact that the world moves, and, with it, the science of medicine has been making giant strides."

We hope it may be long before our medical students sink to the level of those of the Continent of Europe. In England, they are a very respectable class, corresponding very closely with American students, but in France, Germany and Russia, there are many who appear to devote themselves to the lower ranks of politics rather than to medicine, and in disturbed times contribute a very turbulent and dangerous element. The governments of Russia and Prussia are in no humor to submit to any liberties; all disorderly manifestations are promptly and severely repressed; but in Austria, and still more in France, the students are more formidable. Most disgraceful scenes have recently occurred in Paris, when M. Chauffard attempted to begin his course. His political ideas appear to have been unpopular, and he was suspected, we do not know whether justly or not, with conspiring

to remove M. Wurtz from his position of Dean of the Faculty. M. Wurtz, who is generally respected, made every effort to calm the students, but without avail, and as they appeared determined that M. Chauffard should not speak, the school has been closed for a month. We understand that the dissecting-room and some laboratories continue open.

WE reserve for another time the discussion of the report of the Park Commission, but may state now that on the whole it is very satisfactory. The point, however, to be considered at present is whether we can afford a park at all. We are willing to believe that in time it will pay for itself, but that time is not near at hand, and, with the water and drainage questions still unsettled, we feel that the incurrence of further debt is not justifiable.

PROFESSOR TYNDALL, by recent letters, has again invited the attention of critics to himself. While, as yet, the excitement consequent upon the views advanced in his address at Belfast has by no means subsided, he has been engaged in writing to the public, through the columns of the *London Times*, upon Typhoid Fever. The leading medical journals of London contain editorial articles regarding the statements contained in these letters, and their criticisms are of such a character as to incline us to believe that Prof. Tyndall has not gained much honor for himself by assuming to be an authority in matters pertaining to medical science, and in presuming to decide upon subjects with regard to which the medical profession have, up to the present time, been in doubt.

Prof. Tyndall asserts that typhoid fever is a very contagious disease, as smallpox is contagious, and that it can arise in no other way than by contagion. He adopts Dr. Budd's theory that the excreta of typhoid patients contains the poison, and contends that a drain gives enteric fever because it is "a direct continuation of a diseased intestine."

In reply, it seems hardly necessary to state that to most minds in our profession facts seem to point strongly against the doctrine that typhoid fever is a highly contagious disease.

In his description of the pathology of typhoid fever, Prof. Tyndall writes as follows: "The pustules or protuberant patches, called 'Peyer's patches,' thicken and stand out in relief from the surface of the gut." "What medical man could think or speak of Peyer's patches as 'pustules?'" says the *Medical Times and Gazette*, which concludes its editorial notice as follows: "'Let the shoemaker stick to his last;' let Prof. Tyndall attend to his beams of light, and those

phenomena about which he can at least speak intelligently, and leave biological inquiries to those who have been better trained to pursue them."

WE learn by the *Medical Record* that the vexed question of the possibility of spontaneous combustion has of late been under discussion before the Surgical Society of Paris. M. Chassagniol, of Brest, stated that spontaneous combustion was first mentioned in 1692, since which time it has had some partisans in France; but in Germany, especially by M. Caspar, its possibility has been denied. M. Chassagniol, in his researches, has been unable to find any scientific record of, or any competent authority for, a single case of spontaneous combustion in the human body. The original idea was that the alcohol in the bodies of drinkers took fire. A corpse, however, burns very slowly after having been steeped in alcohol for several days. The attempt in recent times to find an analogy between the combustion of stacks of hay and straw and of the human body has been futile, as there is no resemblance between them.

REGIONAL DIAGNOSIS IN PARALYSIS FROM BRAIN DISEASES.—In a clinical lecture published in the *Lancet* of Oct. 31, 1874, Dr. H. Charlton Bastian endeavors to supply such data as may serve as a guide to a more or less definite regional diagnosis in cases of cerebral disease.

Large lesions in the central parts of the pons varolii may give rise to profound "apoplectic" symptoms, characterized by deep coma, complete resolution of limbs on both sides, flapping of cheeks during expiration, insensibility of conjunctivæ, and notably contracted pupils. With such lesions in this situation (especially when suddenly produced), death may take place in a few minutes, a few hours, or in a day or two. Where there is a speedy fatal result, the patient remains in the stage of collapse with a temperature lower than normal. But where the life is prolonged for a few hours, the temperature of both sides of the body steadily rises, till at the time of death it may have attained to 109° or 110° F., a condition of the profoundest coma continuing throughout.

When the lesion is slighter in extent, the patient after a time regains consciousness, but there is a generalized paralysis, more or less equally distributed over the two sides of the body. Sensibility may be notably diminished or perverted in one or more of the limbs. When, in addition to such signs, there is well-marked but irregular paralysis about the face, involving eyelids, mouth and tongue, and when there is also difficulty in deglutition, associated with well-marked difficulty in articulation, or actual speechlessness, not of the aphasic kind, we may be pretty sure we have to do with a lesion involving the central parts of the pons varolii.

If the lesion be in the lower half of one lateral region, we have what is called "alternate hemiplegia," with an unusually well-marked paralysis on the side of the brain lesion, and a more or less complete motor and sensory paralysis of the limbs of the opposite side. The hemiplegia may set in with apoplectic or epileptic symptoms; whilst in other cases it supervenes more gradually, without either loss of consciousness or convulsions. After the effect of the first shock has disappeared, the temperature of the paralyzed limbs is generally found to be about 2° higher than it is on the paralyzed side.

Injuries in the upper half of one lateral region produce a hemiplegia of

the same kind as that last described, with the exception that the paralysis of the face is on the side opposite the brain lesion,—that is, on the same side of the body as the paralysis of the limbs.

Whether the lesion be in the upper or in the lower part of one lateral half of the pons, the facial paralysis is generally very well marked, so as to involve the orbicularis palpebrarum. Associated with it are usually some difficulties in deglutition and articulation, and there is often a copious overflow of saliva from the paralyzed side of the mouth. The degree of impairment of sensibility on the paralyzed side of the body is variable, there being at times a condition of unilateral hyperæsthesia instead of anæsthesia, and either state may be associated with painful sensations in the limbs, or with peculiar subjective sensations of "coldness," even when the temperature of the part is actually higher than natural. The fifth nerve is frequently implicated in these cases of lesion in the lateral region of the pons, so that we may have anæsthesia, hyperæsthesia, painful or anomalous sensations on the corresponding side of the face, accompanied by a decided unilateral impairment in the sense of taste. There will also be a weakening of the temporal, masseter, and other muscles of mastication on the same side, if its motor division is damaged or interfered with. Lesions of the pons are also apt to be associated with what is known as "emotional weakness." There is a proneness to burst into tears or to laugh. The tendency to cry is generally more marked than to laugh. This tendency to emotional weakness in lesions of the pons is in keeping with what we know concerning its functions as a centre, under whose influence the external manifestations of emotional states are regulated.

Where lesions of the pons cause irritation of parts of the surface of the fourth ventricle, we may find sugar in the urine. In other cases there may be polyuria or albuminuria, if lower portions of the fourth ventricle are implicated.

Some lesions in the crus cerebri can be diagnosticated with great certainty, while in others the diagnosis is difficult. These differences depend on the precise seat and extent of the lesion. Should the inner and inferior part of the crus, near the pons, be injured, or should there be a larger lesion, implicating this and contiguous parts of the crus, the third nerve on the same side becomes paralyzed, whilst a hemiplegic condition is also established in the opposite half of the body; the diagnosis should then be easy. If, on the contrary, the lesion implicates only the upper and outer part of the crus (that is, the part next the cerebral hemisphere), the diagnosis becomes much more difficult. There is no distinctive sign of a lesion in this situation. The combination of symptoms produced by lesions in the lower and inner part of the crus is characteristic, and were well described by Dr. Herman Weber some twelve years ago. The condition induced is a peculiar form of "alternate paralysis." The third nerve is paralyzed on the side of the brain lesion, as is shown by ptosis, dilatation and sluggishness of the pupil, by external squint and by great improvement in the movements of the eyeball. All the muscles of the ball are paralyzed, except the external rectus and the superior oblique. The coëxisting hemiplegia on the opposite side of the body approximates in its general character to that produced by a lesion in the upper part of one lateral half of the pons varolii.

Lesions in, or just outside, the optic thalamus often involve at the same time the upper part of the crus cerebri. It will be found most advantageous to compare the effect of injuries to the thalamus with those produced by lesions in, or just outside, the corpus striatum. (These latter have been described in a previous lecture, and are such as occur in a typical case of hemiplegia.) The motor paralysis, occasioned by lesions in or about the thalamus, is generally less pronounced than that which would have been occasioned by lesions of equal extent in or about the corpus striatum. Early tonic and clonic spasms in the paralyzed limbs, or about the face and neck, are especially frequent with lesions of the thalamus. They are quite exceptional when we have to do with lesions of the corpus striatum. There seems to be no great difference as to the degree of impairment of sensibility in

lesions of the thalamus and corpus striatum. The difference in temperature between the limbs on the paralyzed and on the sound side of the body is generally more marked in lesions of the thalamus than in those of the striate body. Aphasic difficulties in speech, which are so common in lesions in, or just outside, the left corpus striatum, are not as a rule met with in similar lesions of the left thalamus. It not unfrequently happens, however, that these two bodies are damaged simultaneously; and then we should have the combination of aphasic symptoms, together with early rigidity and other signs more indicative of a lesion in the thalamus.

FORCIBLE TAXIS IN STRANGULATED HERNIA.—Max Scheide, of Halle, has published, in the *Centralblatt für Chirurgie* for Sept. 12 and 19, an article, in which he advocates the employment of forcible taxis in strangulated hernia. He is convinced that this mode of treatment is far too much neglected by surgeons, most of them being in favor of early operative interference. He gives statistics of forty-seven cases observed by himself between April, 1868, and August, 1874, under which he includes only inguinal and femoral hernias. Of these, forty-one were replaced, with one death from "reduction *en masse*," after forty hours' strangulation. Ten were submitted to operation, of whom five died. Half his cases—viz., twenty-five—were seen within the first twenty-four hours, and were relieved by immediate taxis, but there were sixteen in which strangulation had existed for from two to six days, and of which all but one had been previously submitted to a more or less energetic taxis with or without chloroform; and yet, with the one exception of a reduction *en bloc*, all were replaced by him without extraordinary difficulty.

The reason of his success he attributes to the fact that he is not afraid to employ greater force than is the habit of others, but he is always careful to come to some definite conclusion of the condition of the gut before taxis is attempted. Gangrene of the gut or omentum he thinks never occurs without oedema of the skin over the hernia, and the sense of fluctuation in the tumor shows the presence of a considerable amount of fluid in the sac, and, therefore, a marked interference with the circulation in the gut; in either of these cases, he at once proceeds to operation.

He holds that, in determining the question whether taxis should be employed, tightness of the constriction is a more important element than the mere duration of the strangulation.

When the patient is under the influence of chloroform, and a definite diagnosis as to the nature of the hernia has been arrived at, he proceeds in the following way: with the thumbs placed together, he exerts a powerful pressure on that side of the rupture which appears nearest to the aperture, through which it has emerged, moving it first to one side and then to the other, and pressing on the top of the tumor only when it is a very small one. In his successful cases, he seldom takes more than five minutes, and never more than a quarter of an hour; "but during this time," he says, "I have always employed a much more considerable force than I have ever seen used by others, or than most would consider justifiable."—*Medical Times and Gazette*, Nov. 14, 1873.

TYPHOID FEVER "is best endured by lean, though at the same time muscular, persons; but even in the case of ill-nourished, anæmic or chlorotic individuals, the prognosis is far more favorable than in the case of the corpulent. Of 53 patients in the Hospital at Basle, who would have been called ill-nourished, anæmic or chlorotic, 7 died, or about 13 per cent., while the average mortality at that time was about 15 per cent."—*Ziemssen's Cyclopædia*.

THE mortality of persons employed in different manufactories and of their children amount to almost double that of the other classes of the population.—*Ziemssen's Handbuch*.

Correspondence.

LETTER FROM PHILADELPHIA.

PHILADELPHIA, Nov. 21, 1874.

MESSRS. EDITORS,—The regular medical schools of Philadelphia—I refer, of course, only to the University and Jefferson schools—opened this fall with good classes. The difference, however, between the two universities is greater than it has been for years. This difference is in favor of the Jefferson Medical College, which has a class of over 425 students, the University medical class numbering less than 300. My impression is that the Faculty of the University are disappointed, yet they anticipate a yearly increase of attendance hereafter. Their beautiful lecture rooms, their hospital, laboratories and superior advantages for teaching should be great inducements to earnest students. But as yet, notwithstanding there are sufficient accommodations for lodging the entire number of students in West Philadelphia, they prefer the city proper, and object to the long walk from their boarding houses to the University. This is a trivial matter. The truth probably lies in the wish of the students to be in the city in the evening.

The attendance of medical students at the Philadelphia schools since 1861 has been nearly as good as before the war, previous to which the majority of students were Southerners. The war, however, created a demand for surgeons, and hence the ingress from the northern and frontier States became large and steady. The wealth developed by war contracts, industrial and railroad affairs, increased this influx of Union men. Since peace was declared, the Southern students have reappeared, but in smaller numbers than formerly, and they do not represent the same social degree. Before the war, this class of students came with well-filled pockets, were representatives of wealthy planter-families, and studied medicine merely for plantation use or as a means of obtaining a title. Lincoln's proclamation relieved the planters of the necessity of caring for the health of the negroes, the freedmen have no means of paying for medical treatment, the planters no longer have a domestic reason for educating their sons as physicians, and as for titles, those won during the war overtop all others. Hence the Southern medical student of to-day chooses the profession as a means of obtaining a livelihood.

I have recently learned (what, previously, I had not suspected) that in the Jefferson School the students have been permitted, since shortly after the establishment of the new régime in the Harvard School, to elect their system of study. They are allowed to follow the Harvard plan, and be examined at the close of each year, but with this difference, that the Jefferson student may elect his own branches of study. The yearly examination is final so far as those studies are concerned to which he has devoted himself, and differs from the old system of *general* examination in this respect—proficiency being graded by a system of numbers, the student must win at least an 8 (10 being the highest number) in order to pass. Otherwise, he is remanded to the studies in which he has been examined. Under the old system of one final examination, if the student be marked 6, he passes. Hence, it will be seen that the new system necessitates a higher degree of proficiency. I ought to add that students who follow the elective plan are obliged to pay for the full course, but are not required to attend any other lectures than those which are in direct relation with elected branches of study. A system of partial payments, depending upon the number of yearly branches elected (the rates being \$20 for the ticket of each professor), would, it is thought, be confusing. This may appear unjust, unless the student appreciates that all the advantages, in the study of his chosen branches, are extended to him for an entire year, and that at the end of his course he will have paid no more for his tuition than if he had followed the old system of study.

The majority of students, I regret to say, choose the latter course, which simply causes a cerebral dyspepsia, and so wade for three years in a medical

olla podrida. This might, perhaps, be less common if the new plan of study were brought to the attention of the student with more emphasis.

The elective privilege is now extended to the students of the University Medical School. The best kind of knowledge is systematized knowledge. Every medical teacher in America recognizes this truth; but custom forges chains of iron, and the unhappy competition between medical schools reacts upon the public, most unfortunately, in the guise of half-fledged practitioners. The millennium of medical instruction in America will appear only when teachers can insist upon a high standard of proficiency in study, without fear of injuring either their own interests or those of their schools. This result will probably never be reached until the honorarium of teachers and the expenses of the schools become provided for by endowments. It is to be regretted that Harvard is the only medical school in the country which follows the system of classifying students.

The annual meeting of the American Public Health Association closed on Saturday last. Many valuable papers were read by men wise and thoughtful in sanitary science. Let us hope that the useful suggestions offered may bear fruit in this city; for the improvements in public hygiene and sanitary regulations which were recommended by this body of experienced men form a startling and woful contrast to the present condition of Philadelphia. The *laissez-aller* care of our streets is simply amazing; yet, aside from a few calm and intermittent protests on the part of the daily press, aside from an occasional weak and paroxysmal surge of the Board of Health, nothing is done. The sanitary conference warmly advocated the general adoption of the cheap, wooden pavilion hospital, urging its superiority to any form of permanent structure—which reminds me that one ward of the Presbyterian Pavilion Hospital is nearly or quite completed. Its non-sympathizers thus far find only one flaw in its perfection. They say that the walls, instead of being plastered, should have been plain, closely-jointed wood, caulked, oiled and varnished. They argue that no plaster can be rendered so dense as to be impervious to moisture. Perhaps this is true. At any rate, in the building now erected, the walls will receive three heavy coats of paint, and can be thoroughly and frequently washed. This imperfection in the construction of the wards has probably found a remedy in the ingenious suggestion of Dr. Mitchell, who proposes that in the buildings yet to be erected the plaster shall be replaced by glazed tiles, which, besides being an utterly waterproof material, will, if arranged with a view to harmony of shades, add a new beauty to the ward. The plan will, perhaps, be too expensive. The pavilion now being completed is an experimental building. Its faults will be corrected in the wards not yet erected.

The Hyrtl collection of preparations of the ear, placenta, crania, and the corrosion preparations has arrived, and the various objects have been arranged and are now on exhibition in the Museum of the College of Physicians and Surgeons. They are a perfect dream of beauty and exquisite, delicate finish. The collection will become notorious. I doubt if there be another like it in the world. It would repay one for a long journey. At some future time, I intend to write you more at length in regard to individual specimens.

You know, perhaps, how much more liberally specialties are encouraged in Boston than in Philadelphia. A few years ago, a gentleman came to this city from Boston, intending to practise as an oculist. He came furnished with letters to some of the leading Philadelphia physicians, who not only discouraged him, but assured him that if he persisted in his intentions he would be considered a *quack*. On the day succeeding the presentation of his letters, certain physicians, upon meeting the gentleman on the street, gave him the cut direct. The obstacles in his path were many, for he was the pioneer specialist. His experience was a bitter one. But, encouraged by physicians of broader tendencies, he persevered and became successful. Since his *début*, specialists have become more common. We have eye, ear and skin clinics in the schools, and within five years four dispensaries for special diseases have been opened. One of these, devoted to treatment

of the throat, languished and died because of unavoidable neglect, I surmise, on the part of the physician in charge. The remaining dispensaries, one being devoted to the skin, one to the eye and ear, and the third to the ear alone, are doing good service and are abundantly attended by charity patients. Yet, in the establishment of these institutions, the gentlemen who founded them vainly wrestled with professional prejudice. Dr. Louis A. Duhring, who conducts the dispensary for skin diseases, found that, before he could open *en règle*, he must throw a sop to the prejudiced in shape of a charter, to obtain which he was obliged to spend considerable money and more time. He secured his charter. Then followed the necessity of forming a board of trustees, appointing a president, treasurer, &c. &c. After compassing heaven and earth in this manner, a pupil of every leading skin specialist in Europe, he was allowed to open his dispensary without being called an empiric. Now what is the result? The board of trustees is a lay figure. With the help of one assistant, appointed by himself, Dr. Duhring does all the work, collects all the funds which support the dispensary, writes his own report; his brother is treasurer; the Duhring family contribute one-third of the supporting funds. There is an annual meeting of the board; they listen to the Doctor's report, and he is then left in independence for another year! Dr. Duhring opened his dispensary in January, 1871, during which year he treated 425 cases and 39 varieties of skin disease; during the year 1872, the number of new cases was 401, number of distinct diseases, 39; 441 new patients were registered and 33 varieties of disease treated during the year 1873. This is the only dispensary of the kind in Philadelphia. Dr. Duhring's success in treating the patients has been excellent, nearly 75 per cent. of patients having been cured and relieved, 20 per cent. not having reported result, 5 per cent. still under treatment. These figures show an average of the result during the first three years of the dispensary.

Dr. Geo. Strawbridge came from Europe, five years ago, after devoting much time to the study of the eye and ear. He also determined to open a special dispensary, his plan being to put himself under the wing of the old Philadelphia Dispensary for diseases in general (founded in 1786). The struggle with the Board of Managers was as warm as a political contest. A branch dispensary for the treatment of special diseases would be an innovation. It could not be permitted. But Strawbridge was in earnest, and by the help of pluck, ingenuity and friends, he won his end. The eye and ear department of the dispensary was then established in a section of the city somewhat removed from the main department. During the year 1873, Dr. Strawbridge treated 910 eye and 420 ear patients. I have not the statistics of previous years, but the number of patients increases yearly. At Will's Hospital, there is also a daily eye clinic for treatment of out-patients. The number of patients averages over 3,400 yearly.

Finally, Dr. Charles H. Burnett, an accomplished aural surgeon, opened the "Philadelphia Infirmary" for diseases of the ear in April last. He already has a goodly daily attendance of patients, but has not yet made a report. He was also obliged to secure a charter, and his dispensary, like Dr. Duhring's, is supported by the gifts of private individuals, the donation of which depends entirely upon the energy of Dr. Burnett.

Each of the several general dispensaries of Philadelphia has an obstetric department (obstetrics, curiously enough, not being considered a specialty), but aside from this division of labor, with the single exception of Dr. Strawbridge's branch of the Philadelphia Dispensary, all patients are treated by the physician in charge, who has one assistant and one apothecary.

I hope the day will come when the excellent arrangement of the Boston Dispensary will be adopted here, the patients classified and treated by men skilful in the various specialties. The yearly average number of patients treated at the two principal dispensaries of Philadelphia amounts to over 20,000, which suggests a generous allowance of work for two physicians.

UNGENANT.

Medical Miscellany.

WE are happy to see that the *New York Medical Record* will become a weekly journal with the new year.

A NEW YORK MAN has christened his daughter Glycerine. He says it will be easy to prefix Nitro if her temper resembles her mother's.

SALICINE is recommended by Dr. Mattison in cases of chronic diarrhœa. He gives it, successfully, in doses of five grains, every four hours, to adults. —*London Medical Record*.

BLACK DEATH.—It has been computed that the pestilence vulgarly termed the "black death," which raged in the fourteenth century, destroyed, within a period of five years, one fourth of the entire population of Europe. —*Zeimssen's Handbuch*.

WALB ON REUNION OF INTEGUMENT AND CARTILAGE DETACHED FROM THE NOSE BY A RAPIER STROKE.—In this case, communicated at a recent meeting of the Niederrheinische Gesellschaft (reported in the *Berliner Klinische Wochenschrift*, No. 36, 1874), some minutes elapsed between the injury and the application of the detached portion of the nose, since this could not at first be readily found, and had to be cleansed from adherent dirt. This portion had been cut off from the left ala, and consisted at some parts only of skin, and at others of the more superficial layers of the cartilage. At no part of the raw surface thus left on the nose was there an opening into the cavity of the nostrils. The flap was divided by a transverse wound into two halves, which only just hung together. This was well fixed to the nose by seven peripheral sutures, and by a needle and looped suture at its central part. The subsequent treatment consisted in the continuous application of moist and warm dressings. The flap, which at first was pale, gained, in the course of two hours, a dark-blue color, except at some parts at its margin, and over a large island in its centre, where the looped suture had been placed. These parts, however, soon acquired the pink hue of flesh, and retained their vitality. The sutures were removed on the third and fourth days, and healing was perfected without suppuration. —*London Medical Record*.

BOIL-PEST IN TRIPOLI.—During the early part of the present year, a rare and malignant disease made its appearance in a certain district in Tripoli, characterized by the formation of two or three boils in the axilla, or upon the arms, legs or abdomen. Of ten instances of the affection observed by Dr. Reval, seven terminated fatally within twenty-four hours. It was regarded as a significant feature that the disorder was limited to the members of the tribe of *Merdji*, the inhabitants of the surrounding districts enjoying an immunity from the malady, although they maintained uninterrupted communication with this tribe. The authorities at Constantinople appointed a commission to inquire into the causes of this epidemic, and this commission, the President of which was the American consul, Mr. Temen, have recently made an exhaustive report. In accordance with this report, the epidemic in question had its origin in miasmata proceeding from a burial ground in Merdji, where it is the custom to inter the dead in shallow graves scooped out of the sand, the corpses being simply covered with straw. When it rains, these graves are filled with water, which, upon the following day, is rapidly evaporated by the hot sun, and this contributes to the rapid decomposition of the bodies, by means of which the surrounding atmosphere is loaded with putrid emanations. In winter, the graveyard is converted into a small lake, the water from which is used for drinking purposes. It was also shown that all the wells of the place had their uniform source in this "cemetery pond." —*Allgemeine Medicinische Central Zeitung*, Oct. 10, 1874.

THE VALUE TO THE WORKING CLASSES OF REST ON SUNDAY, from a hygienic point of view, is the subject offered at Geneva for a prize essay. The time for the presentation of essays has expired, and the committee find on their hands forty-nine essays, representing at least three thousand pages of manuscript, written in English, French and German. The result will not be announced at present.

FORMULA FOR VAGINAL INJECTION.—

R. Potassæ chloratis, ʒiv.;
Potassæ permang., gr. x.;
Aque destillatæ, ʒxxvi. M.

A teacupful morning and evening, with a little warm water added.

THE GALVANO-CAUTERY has recently been used by M. Voltolini for the extraction of a bean which had become fixed in the ear of a child of seven years, at the far end of the meatus auditorius externus. After various means had been tried in vain, at a single *séance* the foreign body was burnt by the galvano-cautery at twenty different points. In a day or two, the remains of the bean, reduced to one half its original size, presented itself at the orifice of the meatus and was easily removed.

CAUTERIZATION OF THE UTERUS.—Dr. Wm. Gillespie directs to take an ordinary sponge tent, coat it with beeswax, and then roll it for some time in powdered nitrate of silver, which will sink into and adhere to the wax. Then, with a suitable speculum, carry the tent through the cervix, and, if desirable, to the fundus, and let it remain twenty-four hours. No remedy in his hands has done more good in a short time in chronic inflammation, enlargement or ulceration of the os and cervix uteri, and he has never known any unpleasant results from its employment.—*American Medical Weekly*.

HOW TO CHOOSE A DOCTOR.—The following advertisement appears in *L'Avenir du Gers*:—A good doctor of medicine is wanted at Vie-Fensenzac (Gers). He must belong to the republican party. This party, which is very numerous, will give him a very fine position. No one need apply who defends the Man of Sedan. Republican journals are requested to repeat this advertisement.—*Edinburgh Medical Journal*.

A VIGOROUS OLD AGE.—Dr. Geo. Cupples, of San Antonio, Texas, has recently removed from the head of a patient ninety-five years of age a fibrous tumor of the size and form of a large onion. The operation was performed without the aid of an anæsthetic. The patient returned to his home in twenty days, well.—*American Medical Weekly*.

MORTALITY IN MASSACHUSETTS.—Deaths in thirteen Cities and Towns for the week ending November 28, 1874.

Boston, 149; Worcester, 23; Lowell, 19; Cambridge, 19; Salem, 9; Lawrence, 15; Springfield, 9; Lynn, 9; Fitchburg, 1; Taunton, 5; Newburyport, 0; Somerville, 6; Fall River, 20. Total, 284.

Prevalent Diseases.—Consumption, 62; pneumonia, 33; scarlet fever, 10; typhoid fever, 9; croup, 5; diphtheria, 8.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 5, 1874. Males, 59; females, 76. Accident, 3; abscess, 2; apoplexy, 3; inflammation of the bowels, 3; bronchitis, 10; inflammation of the brain, 1; disease of the brain, 2; burned, 2; cancer, 5; cyanosis, 2; consumption, 26; croup, 1; debility, 1; diarrhoea, 4; dropsy, 2; dropsy of the brain, 4; diphtheria, 1; erysipelas, 1; scarlet fever, 7; typhoid fever, 8; disease of the heart, 5; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; congestion of the lungs, 1; inflammation of the lungs, 14; marasmus, 3; measles, 4; neuralgia, 1; old age, 5; pleurisy, 2; premature birth, 2; purpura hæmorrhagica, 1; pelvic cellulitis, 1; suicide, 1; whooping cough, 3.

Under 5 years of age, 49; between 5 and 20 years, 10; between 20 and 40 years, 28; between 40 and 60 years, 31; over 60 years, 26. Born in the United States, 91; Ireland 32; other places, 12.

Original Communications.

CHANGES IN THE SKIN AND ITS APPENDAGES FOLLOWING
LESIONS OF NERVOUS STRUCTURES.

By S. G. WEBBER, M.D., of Boston.

Read before the Boston Society for Medical Observation.

CHANGES of nutrition may occur in the skin, the subcutaneous cellular tissue, the muscles, the bones or the viscera. I have time now only to refer to the skin and the subcutaneous tissue.

Of the changes in the skin, the simplest is a more or less diffused erythema. Couyba reports two cases; in one, the erythema occurred five days, in the other six days, after the injury. He thus describes the eruption in one patient: "There is to be noticed, on the left knee, a red patch, as large as a two-franc piece. Its surface is quite regularly united, and it is not a simple redness, but rather there is a real elevation of the surface, with marked hyperæmia. By passing the fingers from the erythematous patch to the healthy skin, a slight prominence is felt at its edge." Later, a patch of pigment appeared on the thigh and other patches of erythema. The erythematous patch was hyperæsthetic.

I have seen one case where the erythema was very marked, the skin affected being that of the chest and shoulders, and part of the neck and arms. The skin was mottled, and resembled that of a case of scarlatina. There was no hyperæsthesia. I also reported a similar case to this Society, where the eruption followed an injury to the back, with loss of power in the legs, and hyperæsthesia of the parts covered by the eruption.

Couyba compares these erythematous patches to the "glossy skin," described by Paget and Mitchell. It is not the same. The erythema appeared soon after the injury, was elevated in patches, and, at least in many cases, lacked the glossy character.

Another change in the skin following nervous lesions was observed by Paget and Mitchell, and named "glossy skin." It is thus described by Mitchell: "The skin affected in these cases was deep-red or mottled, or red and pale in patches. The epithelium appeared to have been partially lost, so that the cutis was exposed in places. The subcuticular tissues were nearly all shrunk, and, where the palm alone was attacked, the part so diseased seemed to be a little depressed and firmer, and less elastic than common. In the fingers, there were often cracks in the altered skin, and the integuments presented the appearance of being tightly drawn over the subjacent tissues. The surface of all the affected part was glossy and shining, as though it had been skilfully varnished." "In most of them, the part was de-

void of wrinkles, and perfectly free from hair." This state of the skin was always accompanied with burning pain; "in no case did it become visible short of two weeks, but usually it preceded the healing of the wound, and not rarely was to be traced to an outbreak of inflammation involving the wound." The duration varies from a few weeks to several years.

I have not seen any of the more acute cases, but the more chronic cases are not uncommon. Perhaps it is not to be expected that civil practice should give opportunity to see the severer forms which follow gun-shot and surgical lesions.

Pigmentation may occur in consequence of nerve lesion. Seeligmüller* reports the case of a child with lesion of the brachial plexus, where the sympathetic was affected. The eye on the affected side was a clear blue, on the other, a greenish grey. There was, also, atrophy of the face on the affected side.

M. Mayer showed to the Berlin Medical Society† a woman, 27 years old, with atrophy of the left side of the face. The color of the skin on the left side of the face was also changed: a yellow spot in the middle of the forehead, a white spot over the zygomatic process, and a white spot, resembling a cicatrix, on the upper lip. Also, there was a small lock of white hair, and a large number of white eyelashes. She had had epilepsy for six years, and for three years neuralgia of the left trigeminus. At about the same time with the neuralgia, the pigmentation began.

A scaly eruption is often seen in certain nervous affections. In the case I shall report, it accompanied neuralgia. It was preceded by œdema, and consequent swelling of the parts with hyperæsthesia. Fischer has seen this eruption follow the tract of the nerve. Instead of a dry, scaly eruption, this may be moist and vesicular, an eczema, or the vesicles may be larger and the eruption be herpetic, or bullæ may form. All recent authors who have written upon this subject refer to these vesicular and bullous eruptions. Charcot‡ reports a case, in which probable lesion of a branch of the radial nerve was followed by an eruption of bullæ on the dorsum of the hand, of the index, middle and ring finger. The bullæ appeared in the neighborhood of the joints, burst, and quickly healed up.

In the *Mémoires de la Société de Biologie* for 1865, Charcot, with Cotard, reports a case of cancer of the vertebræ, where the fourth cervical vertebra gave way on the right. There was an eruption of herpetic vesicles over the whole right side of the neck. The ganglia on the roots of the cervical nerves, and the trunk after the union of the roots were swollen and congested. Under the microscope, no change could be seen in the nerve fibres or cells, but only the increased fulness of the bloodvessels.

Ulcerations are seen to follow lesions of nerves, especially near the nails,§ perhaps due to the irritation of the curved nails. Bed-sores may be mentioned in this connection. The ulcerations in the trachea or bronchi and œsophagus, in cases of aneurism of the aorta, may be due to pressure of the aneurism upon the nerves; the recurrent laryngeal and pneumogastric are especially exposed to pressure. In one

* Berliner Klin. Wochenschrift, 1870, page 313.

† Wiener Med. Presse, 13 Feb., 1870, page 149.

‡ Journal de Physiologie, 1853, page 108.

§ Couyba, page 16.

case, I saw an ulceration or local inflammation in the lower part of the peritoneal cavity over the rectum, and could find no cause for it, all the rest of the abdominal cavity being healthy. The patient was paraplegic.

The nails are variously altered. They are more sharply curved transversely, and the ends may curve over the ends of the fingers; they may be thrown up in ridges, become brittle and break easily, may be changed in color, becoming yellowish, and may be retarded in growth, or, for a short time, cease to grow. In two of the cases I report, the nails were very much changed.

The hair may fall off and cease to grow, or be very much dwarfed in its growth, as is seen in the cases of "glossy skin." Or it may be much more luxuriant. A remarkable case of the latter appearance is reported by Dr. Jelly, in the *British Medical Journal* for 1873. A boy, 18 years old, had complete paraplegia from a fall. His hair had grown to an extraordinary length over the whole body, back and front, below the last dorsal vertebra; but was longest from the nates to the middle of the thigh, being so long there that it could be easily curled.

The hair may change color. Dr. Victor Urbantschitsch reports a case* where the hair turned white over the region supplied by the auriculo-temporal branch of the fifth nerve, after an abscess in the ear. An abscess on the other side followed with alopecia.

Again, the hair may only become coarser, and hard and harsh. Anstie mentions these changes of the hair following neuralgia.

The subcutaneous cellular tissue may become œdematous, may be thickened and hardened by interstitial deposits, or abscesses may form and cause much trouble, or there may be atrophy. Œdema is frequently seen in paralyzed limbs, whether the paralysis is central or peripheral. Romberg refers to a case of sciatica, reported by Cotugno, where there was œdema of both legs; the patient died of typhus fever.† Several authors report swellings which resembled abscesses, but which disappeared and returned much too rapidly to be inflammatory. In one case, an incision was made without finding pus. I have seen a patient who reported that he had such swellings, which would appear and attain a large size in a few hours, and would disappear as quickly. I never saw one of them.

In one of the cases to be reported, felons were found on each finger, except the little finger. Fischer‡ mentions such. "Without general disturbance, and without severe pain, the last phalanges of the fingers are swollen like a knob. The swelling remains firm for a while, then softens. Deep abscesses are opened, which penetrate to the bone, and this may be carious or necrosed. These abscesses heal slowly, or not at all, and always cause deformity. On the feet, they sometimes resemble *mal perforant*." Duplay and Morat§ give an account of the *mal perforant du pied* as a neurosis.

Atrophy of the subcutaneous tissue, in cases of nerve lesion, will account for some cases of atrophy, as, perhaps, in two cases of facial atrophy already referred to, and in other cases, especially some reported by Lande. The diminution in the size of the fingers in one

* Wiener Med. Presse, 1874, page 765.

† Sydenham Society Translation, Vol. I. page 66.

‡ Centralblatt, 1871.

§ Archives Générales, 1873.

case to be reported was probably due chiefly to the atrophy of the subcutaneous tissue.

Nicati refers to atrophy of the capillary network as preceding the atrophy of the connective tissue.

Mitchell reports one case of hypertrophy of connective tissue after wound of nerve.

The secretions of the skin may be altered. The perspiration may almost cease, so that the skin is dry and harsh, or it may be in excess of that on the healthy side, or it may be altered in quality. I have seen one case in which the affected side was bathed in profuse perspiration, large drops standing upon the skin, while the healthy side was comparatively dry. In one of the cases to be reported, the patient mentioned the excess of this secretion on the side which showed the most marked nutritive changes in the skin. Mitchell, Morehouse and Keen mention one case where the sweat was intensely acid, so that an odor of vinegar could be smelt at all times in the neighborhood of the man. In one case, they state the odor of the sweat was disgustingly heavy, and resembled the smells from a bad drain.

The sebaceous secretions are generally not mentioned. Where the skin is very dry, and the hair feels harsh, it may be supposed to be diminished. Lande says it is diminished in cases of facial atrophy.

This is a very brief sketch of the changes in the skin and its appendages following nerve lesion. These changes may result from irritation or from paralysis. From paralysis may follow oedema, with infiltration and induration, perhaps pigmentation, atrophy, and, possibly, simple erythema, though the erythema in the cases which I noticed could not be certainly referred to paralysis. Most of the changes, however, must be considered as arising from irritative lesions. This is the case with "glossy skin," with the vesicular eruptions, and, probably, with the lesions of nails and hairs. Bed-sores and other ulcerations must also be referred to irritation. A dry, harsh skin, with absence of sweat and of the sebaceous secretions, is referred, by Mitchell, to paralysis; where the secretions are excessive, to irritation.

We may be able to judge in part from the nature of the nutritive change as to the seat of the nervous lesion. I am not aware that "glossy skin" has been found, except in connection with peripheral lesions. Judging from the few autopsies, it may be safe to say that vesicular eruptions are dependent upon lesion of the spinal ganglia or nerve roots. Charcot, indeed, refers to cases where such eruptions were found in cases of central lesion, but he says those observations are reported in a very summary manner, and he refrains from drawing any deductions from them. On the contrary, he reports such a case, zona on the paralyzed leg in a case of hemiplegia from cerebral softening, occurring at the same time with the hemiplegia. At the autopsy, besides the softening, a branch of a spinal artery, plugged by a clot, was found attached to one of the posterior roots of the chorda equina.

The cases of erythema reported by Couyba, and those which I have seen, followed spinal lesions. Ulcerations, especially bed-sores, are found in central lesions, spinal or cerebral. In spinal lesion, the bed-sore is usually over the sacrum, near the median line. In cerebral lesion, it is more likely to be on the side over the gluteal region.

Attempts have been made to refer these changes, some to the influence of the vaso-motor nerves, some to that of special trophic nerves.

It does not seem at all likely that they all can be dependent upon vaso-motor changes alone. I will not, however, attempt to make any definite division.

The following cases will illustrate some of the cases above described. The second case also presented changes in the muscular and osseous systems.

CASE I.—Fall; Injury to Wrist; Deformity of Hand; Nutritive Changes in Skin and Nails.

Mr. B. H., seen in June, fell on the ice in the January previous, striking the right hand. There was not much pain from the fall. The hand, so he said, was of the same shape immediately after the fall as now. It was put up in splints, and taken out about four weeks after the accident, and has been stiff since. Now, the metacarpal bones seem to be dislocated to the radial side, the radius and ulnar seem to be unaffected, the carpus is in some way displaced, and the back of the hand is strongly arched. Exactly where and what the injury was, I will not undertake to decide.

The thumb is curved into the palm, the fingers and wrist are much restricted in their motions. The fingers are glossy, the nails narrower, sensation is unimpaired, the hand is somewhat œdematous.

Oct. 15th.—The right hand is less œdematous, the knuckles of the fingers apparently are more swollen; first phalanx of the middle, ring and index, each measure one-eighth of an inch less in circumference than the corresponding parts on the right. The little fingers are equal in size, as are, also, the thumbs. The joints are equal in size on the two hands, except the last phalangeal joints. The skin is whitish, shiny and dry, that on the fingers being more so than that on the hand. The nails are curved laterally, are very narrow, and of different color from the other hand. There is pain nearly all the time in the hand, but not severe. The motions of the wrist are rather freer, of the fingers about the same as in the early summer. Supination causes pain, pronation is less painful. All the fingers, except the thumb and perhaps the index-finger, are numb, both on palmar and dorsal aspect.

CASE II.—Progressive Muscular Atrophy on the Left; Changes of Nutrition in Skin, Cellular Tissue and Bone on the Right.

Jane McG., aged 27. seen May 4, 1872. Family history shows no special nervous taint. The patient was healthy till she was 17 years old, except relapsing fever when about 11 years old. For the last six years, she has had "inflammatory rheumatism," not a month passing when it did not "pain her," in the right arm, back of the neck, left side, down the back; never in the legs. In the right side of the head, behind the ear, shooting pain and cold chills for about five years. When the "rheumatic" attack in the right arm first appeared, she had been working at her trade as seamstress rather more steadily than usual, and had been at work pretty steadily for five years previously. The pain was at first burning in character, with heat in the arm, without swelling; the pain was very severe in the wrist. She continued to sew, but could not do her work well, and had to give up sometimes on account of pain and weakness. Sometimes, when holding a needle, her fingers became cramped. At the beginning, the thumb and fore-finger pained her; once in a while, there were cramps before the pain. In about three weeks, the pain extended from the hand to the elbow, and in about three months, to the shoulders and neck. Pain has con-

tinued since, but the cramps in the fingers have been present only once in a while.

About seven years ago, she began to have trouble in the left arm. Gradually, a weakness came in the fingers, and they drew up. She could not hold her work; there was pain and heat in the fingers, beginning first in the little finger, then spreading to the other fingers and thumb, then to elbow and shoulders in about nine months. The pain was not severe, but tiresome. About six years ago, she could not raise her hand to her head, and it has been growing worse since. No cramps in left arm. Has had headaches at times, since arms have troubled her; also, has been dizzy, sometimes eyesight dim.

Both pupils acted well; the right was slightly enlarged. The external rectus on the right did not act quite so quickly as the internal; there was no strabismus. The right eye moved less steadily, in following a moving object, than the left. There was no facial paralysis, or numbness of the face. When there is pain in the neck, the head and face flush, and then she cannot see well. Sometimes, however, the face is pale when the pain is present in the neck. The flushing is most marked on the right side of the face, and she sweats more on that side.

The left fingers and hand were much wasted, and the fingers were contracted; the skin over the two distal phalanges was shining and whitish, less so over the first. The contraction of the fingers was gradual during five or six years. Three years ago, there was a swelling in the palm, which was opened, and pus evacuated. The motions of the left arm were much interfered with. She can pronate and supinate the hand; can shut the fingers, if they move together; can only half extend them; cannot spread fingers apart. Motions of thumb are restricted. Motions of wrist are nearly normal, except as to flexion. She can flex the elbow only slightly when the upper arm is abducted. Cannot raise her arm to the horizontal; can abduct and adduct arm, and move it forward and backward.

The supra- and infra-spinatus were much wasted, as were, also, the posterior portion of the deltoid, the pectoralis, biceps, thenar and hypothenar eminences. These, and the flexors of the fingers and interossei, acted poorly to the induced current, better to the galvanic. Snapping the muscles, deltoid, triceps and others, caused fibrillary contractions on the left. The motions of the right hand and arm were good, and about normal in extent; snapping some of the muscles on the right, caused slight fibrillary contractions.

About three years ago, she began to have felons on the right hand, first the middle finger, then the ring, then the index, then the thumb. The little finger was not thus affected, but it was contracted. The fingers were much deformed, the joints being enlarged, the nails misshapen, and the last phalanx of the middle finger was gone. The skin was shining. The sensation was much diminished in the right arm, and on the right side of the neck behind the ear. With the ophthalmoscope, the papillae were very red, the vessels on entering became fainter, as if covered by a thin film.

It will be noticed that the muscles and motor nerves were chiefly affected on the left; the sensation and skin, with its cellular tissue, and hence the sensitive nerves, mostly on the right.

CASE III.—*Neuralgia, accompanied with Scaly Eruption.*

Miss A. B., aged 42, was first seen about three years ago, and again two years ago, and frequently since. She has been troubled much with neuralgia, dating from unusual excitement and over-exertion, when young. The neuralgic pain has affected different parts of the body, first in the epigastric region, then in the arms, and has been frequently in the head, in the form of hemicrania. Sometimes, the pain extended from the head down the back, and also into the chest. The headaches come on with flashes before the eyes. A small, stationary, black spot was perceived in the right eye, sometimes in the left. This is not seen, except during an attack of headache, or when over-tired. The pain begins just behind the left ear, then goes over the left eye, down over the cheek and nose on the left side, and then becomes general. Then there is a twitching in the left arm and leg, and then on the right side; sometimes this twitching is very strong.

When the neuralgia attacks the arm, there is developed, in a short time, a condition such as I saw in the right arm. There were tender spots over the median and the musculo-spiral nerve above the elbow, also over the median at the bend of the elbow. When the neuralgia first appears, the hand on the affected side swells and is very sensitive, so that it is disagreeable to touch any object. Subsequently, the epidermis scales off, and when I saw her the palm of the right hand, mostly on the ulnar side, was covered with a thick, scaly eruption. This eruption followed the neuralgia, increased with the increase of pain, and diminished when the pain decreased. When the pain ceased, the eruption disappeared.

Progress in Medicine.

REPORT ON SURGERY.

By J. COLLINS WARREN, M.D.

ESMARCH'S "BLOODLESS SURGERY."

PROF. ESMARCH, whose paper on this subject has excited so much interest, finding, on a recent visit to England, that many surgeons were but imperfectly acquainted with his method, that others applied it, but not in the right manner, while others attached no importance to the avoidance of hæmorrhage during an operation, took occasion to read a paper on the value of this method before the Clinical Society of London. The paper was subsequently published in the *British Medical Journal* for Oct. 17, 1874. He finds the influence of this method on the mortality after the greater operations to be decided, especially after amputation of the limbs. He says:—"I lately compared the results obtained in my practice after operations performed bloodlessly, with the recently published results of operations performed by other surgeons, and I found that my results were much better than the best of these, including even those in which the antiseptic method had been strictly followed." Thinking, however, that a more just comparison would be that between cases occurring in his own practice and performed in the same hospital, previous to the application of the bloodless method and afterwards, he gives the statistics of the operations performed by him during the last six years. "Of 88

amputations of the thigh, performed in the first five years, there died 37, or 42· per cent. Of 67 amputations of the leg there died 19, or 28·3 per cent. After the adoption of the bloodless method, there died of 13 amputations of the thigh, only 1 : so that the proportion of fatal cases in amputations of the thigh and leg together is brought down from 36 to 8 per cent." He is of the opinion that these statistics, admitting the error which may result from the difference of the numbers compared, afford such striking evidence of the value of bloodless surgery that no one should neglect this method in cases to which it is at all applicable. He thinks it should not be limited to operations on the extremities, but should be extended to other regions with such special modifications as each case may require. He has used it in amputations and excisions of the shoulder joint, in operations on the male genital organs of such an extensive character that they could not have been attempted under former circumstances. In the three hundred cases in which he has used this method, he has met with no evil consequences which could be attributed to it. The longest operation which he performed by this method lasted two hours and a quarter. It was a case of necrosis of both tibiæ, with suppuration of the knee-joint on one side, in which he first removed many pieces of dead bone from one tibia, and then performed resection of the knee-joint, his assistant being at the same time engaged in operating for necrosis on the other limb.

HERNIA.

Charles Steel, F.R.C.S., in a paper read before the Bristol and Bath Branch of the British Medical Association, says of Wood's operation for the radical cure of hernia, that, although it is highly successful in its author's hands, it has been frequently attended with fatal results in the practice of other surgeons. He adds, "now that trusses are made so scientifically to fit and support, it is unjustifiable to perform an operation which is attended with much risk of life; at the same time, when good prospect of permanent success, with but little risk of life, is offered by operation, it is right to endeavor to save patients from the life-long trouble of wearing a truss, especially as the existence of a hernia disqualifies men from certain services and duties." He recommends a method of operating which, although thought out by himself, he finds substantially described in Gross's Surgery. It consists in making an incision between, and parallel to, the pillars of the external ring, and dissecting down until the pillars are fairly exposed. Their edges are scraped with a scalpel to roughen them, and they are then brought together by catgut sutures, the wound being treated antiseptically. The writer attaches great importance to the subsequent use of a proper truss to give time for effused lymph to become firmly organized, otherwise there is liability of the hernia to be reproduced at any time within a year of the operation.

Strangulated Hernia.—Dr. Herman Lossen (*Centr. für Chir.* No. 4, 1874; *London Med. Record*, July 8, 1874) gives an account of experiments made by him for the purpose of determining the mechanism of hernial strangulation. He states: "For the reduction of those cases of hernia in which, from inflammatory swelling, a protruding intestine has so much increased in volume that it cannot be pressed back through the same aperture by which it protruded, there exist two

rival theories: Roser's valve theory, and Scarpa and Busch's theory of pinching of the intestinal canal. To decide whether either of these be correct, and if so, which is the more so, I repeated Busch's experiments with fresh pig's gut; but, instead of water, I used melted wax, which, on cooling, became a solid mass. The hernial apertures were represented by holes bored through the lid of a cigar box, through which a finger might pass. The casts of the loops, after removal of the artificial hernial rings, were now embedded in wax of another color, and vertical sections made through them. In the same fashion, a number of loops inflated with air were artificially strangulated and then dried."

The following results are demonstrated by these preparations and experiments:

1. At the moment when the wax, or air, or, in the living gut, the faecal matter, enters the afferent end, the efferent portion of the gut, at the level of the hernial aperture, is pressed together, and by the constantly increasing pressure is finally completely closed.

2. This being accomplished, no pressure, however great, coming from above, will re-open the distal end of the gut.

3. The pinching (*Abknickung*) of the intestine, which is principally referred to the opposed folds of mesentery, is not the cause, but the consequence, of this closure.

4. The afferent end is never closed, which appears to contradict the hydrostatic law that in a closed space lateral pressure acts equally in all directions, and perpendicularly to the surface. According to this law, the pressure in a strangulated loop must exist up to the level of the hernial ring; and above it, in the afferent piece of intestine, a diminution or increase of pressure must manifest itself equally in all directions.

This may be demonstrated with extreme facility by means of a manometer attached to the afferent end of the artificially incarcerated loop of intestine. It may be shown in this manner, beyond all doubt, that in the living intestine the whole column of excrement presses upon the contents of the bowel in the strangulated loop. Therefore the pressure on the sides of the loop will depend upon the height and length of this column, and upon the resistance the intestine offers to the pushing back of the faecal contents. The height of this column may become considerable by reason of the long continuance of the strangulation. During this time the pressure constantly augments, but it possibly may be reduced by severe faecal vomiting. The impediments arising from friction are the most important. These, from the very outset, are in inverse proportion to the transverse section of the hernial aperture; they depend further upon the viscosity of the contents of the bowel, upon the number of 'pinchings' of the intestine occasioned by the gradual swelling of the convolutions of the bowel above, and also upon the contractile force of the pylorus and of the ileo-caecal valve. They increase with the increasing peristaltic motion and swelling of the intestinal coverings, in consequence of which the afferent end may ultimately assume the minimum transverse section.

The author's observations and experiments show how great the lateral pressure upon the loop may become. It is manifest that the maximum of lateral pressure immediately above the hernial aperture must be attained at the time when that pressure equals the sum of the

resistance due to impediments in the whole upper tract of the bowel. From this moment must commence a backward motion of the contents of the bowel, the fluid particles flowing back in the axis of the canal, whilst along the walls the peristaltic influence will urge the matter forward. In the strangulated loop these movements are reversed, and maintain the equipoise. Under these circumstances, the pressure does not further increase.

In the living subject, the resistance is much greater than in the dead, in consequence of the peristaltic action, the viscid nature of the bowel contents, and the smaller size of the hernial aperture.

The manometer shows that all species of direct pressure upon the tumor increases the tension, and aggravates rather than improves the condition of affairs. Neither Roser's nor Busch's theory explains this. It is the lateral pressure at the orifice of the sac which alone prevents reposition.

A rational taxis then will renounce attempting any alteration at the afferent end. The efferent end is the one to be opened. "This is to be effected," Dr. Lossen says, "as I am in a position by the manometric experiment to prove, by pressing the loop of intestine towards the side of the afferent end. The efferent end is by this means opened, and the loop partially empties itself, then a slight pressure upon the hernial swelling is sufficient to effect reduction."

Seeing that no practical diagnostic means are known whereby it can be accurately ascertained at what side, the right or left, the upper or lower, the efferent end may lie, the author recommends that side-ward movements of the hernial swelling be carried circularly round. If this end be not attainable, an external herniotomy may be made, and then similar manipulations again tried before incision of the ring.

From the preceding it is also clear that, in the internal treatment, laxatives must not be administered, and that large doses of opium are to be commended immediately after the occurrence of strangulation. The peristaltic action will be thereby lessened, and thus one provocative of lateral pressure eliminated.

On the Action of the Muscles in Strangulated Hernia.—Motte, having made numerous observations and experiments on living men and animals, comes to the following conclusions (*Bulletin de l'Académie Royale de Méd. de Belgique*, 1874, No. 6; *Centr. für Chir.*, No. 32):

A hernia can be produced without any participation whatever of the muscles; for example, of the diaphragm.

The muscles of the abdominal walls can present more or less of an obstacle to the reduction of a hernia, and increase the strangulation. This is not, however, usually the case, and there is never any condition of permanent spasm. Of the different positions which are recommended to relax the muscles, and to allow the hernial aperture to be opened to its fullest extent, there is not a single one which effects this with certainty in all cases.

In performing taxis, the operator should not adhere to any one method, but if the reduction is difficult, should try various positions.

TETANUS.

The treatment of tetanus by the injection of chlôral hydrate into the veins has given rise to a good deal of discussion. Even those opposed to it allow that the remedy has the effect of relieving the symptoms. Rest and sleep are ensured, and ability on the part of the patient to

receive nourishment. The injection of chloral into the veins is said to be dangerous, inasmuch as it causes coagulation of the blood; it is, moreover, unnecessary, as the drug can be introduced into the stomach through a tube.

It is maintained that chloral does not cure the disease, as only chronic cases have been cited, and these always get well of themselves. Verneuil, however, contends that this division is a purely artificial one, as it is impossible to establish a differential diagnosis at the outset of the disease. The dose is large—six to ten grammes, in double the quantity of water—given until all symptoms yield. A reference to this subject is to be found in the *Centralblatt*, No. 45, 1874.

ANÆSTHESIA.

Dr. Jacob Helberg, of Christiania (*Berliner Klinische Wochenschrift*, No. 36, 1874), proposes a substitute for the present method of relieving difficult or impeded respiration during anæsthesia. The use of the gag to pry open the mouth, and of the forceps to drag forward the tongue, is frequently attended with some injury to the mouth, of a permanent character, or, at least, may be followed by a sense of discomfort, lasting for some days. His procedure consists, simply, in dragging forward the lower jaw-bone, and is described by him as follows: "Standing behind the recumbent patient, the two thumbs of the operator are placed upon the symphysis of the lower jaw, while the index fingers are hooked behind the ascending ramus of the jaw. The bone is then pulled forcibly forward (anatomically). The force should be applied as if the operator intended to lift the patient up by his jaw-bone. During anæsthesia, the head of the bone slips forward with a perceptible jerk, and the whole lower jaw overlaps the upper jaw. As soon as this is accomplished, which is easily done in children, a deep, full inspiration follows, immediately, and continues as long as the bone is held in position." The author supposes that the epiglottis is thus lifted off the rima glottidis.

A CRUEL JOKE.—A surgeon living in a colliery district near Thornley was recently made the subject of a very cruel joke, says the *Pall Mall Gazette*. Word was brought to him that a terrible accident had occurred at a colliery in the neighborhood, and he was urged to lose no time in going there with instruments, splints, lint and bandages. He hurried off accordingly, most elaborately prepared, and, the news having spread, he was followed with no less haste by numbers of the villagers. An accident had really happened near the pit's mouth. In the high gale which did so much mischief a few days ago, a travelling waxwork show which had been exhibited to the miners was blown over, and the surgeon found that the patients for whom he had run himself out of breath were life-like figures of Mary Ann Cotton, who had lost one of her arms; Tropmann, the French murderer, whose skull had been fractured; and several other inmates of the "chamber of horrors," who had broken legs or arms, or received injuries more or less serious. The surgeon's disappointment and disgust deserve heartfelt sympathy. On public as well as on private grounds, too, these unseemly jokes should be discouraged. It would be exceedingly convenient if, in colliery explosions and railway accidents, lay figures could be blown up or smashed in the place of the actual sufferers. As, however, science has not hitherto perfected any such system of vicarious sacrifice, very awkward consequences may ensue if practical jokers permit themselves to trifle too often with medical men, and thus lead them to stay away when they are really wanted.—*Medical Press and Circular*.

Reports of Medical Societies.

MIDDLESEX EAST DISTRICT MEDICAL SOCIETY. AZEL AMES, JR., M.D., SECRETARY.

THE Society met in Reading, Nov. 18th, the President, Dr. S. W. ABBOTT, in the chair.

Complete Laceration of the Perineum and Sphincter Ani, complicated with Incontinence of Urine. Recovery. Dr. FRANCIS F. BROWN reported the case.

Mrs. L., aged about twenty-five, a woman of good health, was taken in her first labor, April 24, 1874, about 10 P.M., membranes rupturing at that time. Saw her for the first time at 9 P.M., the 25th. Found os uteri slightly dilated; external parts rigid and sensitive, as they were throughout the labor. She had suffered much pain during the whole twenty-four hours. Thus she lingered till noon of the 26th, when the os was two-thirds dilated and dilatable. At half past twelve, April 26th, thirty-nine hours after the commencement of labor, I applied Hodge's long forceps, telling the nurse and husband that there would be laceration and they must not blame me for any unfortunate result. I had twelve ounces of sulphuric ether with me. It took considerable of it to bring her under its influence, and I soon found that more would be needed. It was sent for; but, before its arrival, the woman was delivered of a living child, one hour and three-quarters after commencement of the inhalation. In consequence of the sparing use of the ether, the patient became unruly and hard to manage. Once the husband lifted her with a jerk, and laid her down suddenly, so as to bring from me an involuntary exclamation of fear of injury.* Considering the high position of the child and the rigidity of the external parts, the forceps were introduced with less difficulty than I expected.† The head presented; vertex to the right sacro-iliac synchondrosis, rotating so as to bring the occiput to the posterior fourchette, and the forehead under the pubes. The perineum was lacerated during the passage of the head. The placenta was soon delivered, and the rent carefully examined. It extended entirely through the sphincter ani, and one half an inch into the rectum. The wound was carefully closed with three deep quilled silk sutures, one of which passed through the sphincter muscle. Remembering the success of the elder Dr. Stevens, in a similar case, I hoped for a like good result. The urine had been passed by the patient before etherization; it was now drawn with the catheter, looking turbid, as I recollected afterward, but whether with blood, in the hurry of the moment was not noted. Pulse 120, immediately after delivery; 110, three hours afterwards. She passed a comfortable night under opium. The next morning, I introduced the catheter and instructed the nurse, who had been accustomed to use it, to do it in the evening. What was my horror the next (second) morning to learn that the urine had flowed involuntarily from my patient twice during the night. Here was a pretty fix. A vesico-vaginal fistula, as I thought, in addition to complete laceration of the perineum! For weeks or months this delicate,

* I cannot help thinking that the incontinence of urine resulted from injury produced at this moment.

† The blades being accurately applied to the sides of the head, reaching to the middle of each cheek, as was plain after delivery.

petted lady must live, befouled and excoriated by her own excrements, to be relieved only by a surgical operation which would necessitate her removal to a distant hospital! Such was the dismal future that rose before me at that moment.

For the next two weeks, gentlemen, there were at least two miserable people in Reading, this patient and her doctor. I need not describe her condition, lying on her back, constantly bathed and excoriated by decomposing urine, from which no skill or care could protect her; happy in this, however, that she was ignorant of the real extent of her injury.

The sutures were removed on Saturday, the seventh day after labor. As the wound had been constantly wet with urine, I expected to find no union, and, according to my notes and my recollection, there was none. The most unexpected and fortunate recovery which followed makes me doubtful of the correctness of my observation. I did not separate nor draw upon the lips of the wound, which were in apposition, wishing to avoid possibility of harm, so there may have been slight adhesion; but I set it down at the time, in my mind and notes, that there was none. On the eleventh day, the bowels, which had been kept, all this time, quiet by opium, were freely moved by citrate of magnesia; there was not the slightest control over the feces. The next day, twelfth after confinement, on account of uneasiness in the parts, I used the syringe to clean the lower end of the bowel, being careful to insert and direct the pipe well back towards the coccyx, away from the wound. The water flowed from the vagina and the perineal rent, the anterior part of it at any rate, as fast as pumped into the rectum.

May 9th.—Two days afterwards, the fourteenth day after the confinement, the bowels moved spontaneously. There was no control over their motions as yet. But now comes a pleasanter part of my story. A fortnight had now passed as described. The urine, with the exception of the first twenty-four or thirty hours, had been constantly dribbling away, as fast as it entered the bladder. Now, it was noticed that the flow was not constant, but sometimes, at first during sleep, ceased; at first, half an hour, then an hour, then two hours; and about May 14th, nineteenth day after labor, complete control over the bladder was regained.

At the same date, examination showed, to my astonishment, that the perineum was healing. Opium was continued till the 16th, twenty-first day after labor, when a dejection, after Seidlitz powder, proved that my patient had recovered control over her bowels also.

On May 20th, twenty-fourth day after labor, a more thorough examination being made, previous ones being incomplete for fear of injury, revealed a solid perineum about three-fourths of an inch broad and one-half of an inch thick, and a small recto-vaginal fistula. An enema into the rectum would partly flow from the vagina, but solid feces never passed this way after this date. Within a month, that is by June 20th, this opening *had entirely closed*. Since July she has enjoyed good health. Has slight uneasiness after urinating, and sometimes darting pains, which seem, as near as I can make out, to proceed from the seat of the wound. There is no bearing down or dragging sensation, or feeling of loss of support, "as if every thing is tumbling out."

Now, as to the incontinence of urine, I am inclined to the opinion

that it was due to a vesico-vaginal fistula, although no examination was made to settle the point. The extreme soreness of the parts, and the fear of disturbing the perineal rent, with my belief that nothing was to be gained for my patient by an immediate examination, led me to defer it from day to day till her recovery from this difficulty made it unnecessary. Might not this trouble have been due to paralysis of the sphincter of the bladder, rather than to a fistula? Her spontaneous recovery may make this seem probable. On the other hand, vesico-vaginal fistulæ are occasionally known to heal spontaneously. Two members of our Society, Drs. S. W. Abbott, of Wakefield, and Wm. F. Stevens, of Stonelham, have each had such a case. Dr. Abbott will report to you his case himself. In Dr. Stevens's patient, there was an opening into the urethra or bladder, probably the latter, for there was entire incontinence of urine, following rapid delivery without instruments. The fistula was probably the result of a rent, and not a slough, for the incontinence followed soon after the birth of the child. Bearing on this point are cases of chronic perforating ulcer of the bladder cured by Sir James Y. Simpson by putting the viscus into a state of physiological rest by means of an artificial vesico-vaginal fistula, effected by introducing a grooved staff along the urethra, and slitting up the posterior fourth of the canal and about one inch of the posterior wall of the bladder. There was no difficulty in getting the fistula to close after the ulcer had healed; the difficulty was to get it to remain open long enough.*

Dr. Emmet, of New York, performs the same operation with similar results; all of which seems to show that however difficult it may be to heal a fistula in which there is a loss of substance from a slough, a clean cut readily closes. Paralysis of the bladder after labor, whatever we might expect from reasoning on it, usually results, not in incontinence of urine, but in retention.

Here there was no retention after the first thirty hours, but the opposite condition, and the bladder was constantly empty. Most accidents of this kind are supposed to be due to long pressure of the head on the bladder and urethra after the descent of the head has begun, causing a slough which separates in from four days to two or three weeks. In this case the head had not begun to descend when the forceps were applied; and I think the injury may have been caused by one of the blades making a small cut, not quite through some part of the bladder, during some of the movements of the patient when partially under the influence of ether, as before mentioned.†

In regard to injuries to the perineum, Professor T. G. Thomas, of New York, says:‡ "It may be affirmed, in a general way, that any laceration which does not entirely sever the sphincter ani may heal without surgical treatment, and that none which converts the two passages into one will do so. Even when the rupture has been complete, it has been asserted that spontaneous cure has taken place, but such reports need confirmation. Peu once affirmed that he had seen a woman thus injured, and who passed her feces involuntarily, entirely recover. De la Motte declares that thirty years after-

* See Braithwaite, July, 1871, page 224.

† No attempt was made to keep a catheter in the bladder, under the (perhaps mistaken) idea that the irritation of its presence would counteract the good it might do. In another such case I would try it.

‡ Diseases of Women, page 115.

wards he met and examined Peu's patient in Normandy, and found that no recovery had occurred." In my patient, every fibre of the sphincter was torn through, converting the two passages into one. This has completely healed as, I have described. Whether the cure was spontaneous, or whether there was some union at the time of the removal of the sutures which I overlooked, I leave you to judge. Spontaneous or not, union under such extremely unfavorable circumstances was entirely as unexpected as it was fortunate.

Treatment was mainly by opium, rest and non-interference of the parts—I should have liked to add, cleanliness, but that was out of the question.

1st. Opium was well borne; I have never seen it act more happily, constipating the bowels, giving the patient quiet and sleep, and benumbing a keen sense of misery. She was kept well under its influence for three weeks, and partially so a while longer. There was no trouble in leaving it off.

2d. Rest. For nearly three weeks she was lifted from one side of the bed to the other, not exerting herself in the least, not even moving her legs, nor separating her knees.

3d. The injured parts were interfered with as little as possible; no examination of the leak from the bladder was made for fear of disturbance of any healing which might possibly be taking place.

Allow me a few words more in justification of myself. Perhaps some of you may think that in relating this case I have been exposing my own blundering and lack of judgment and skill. If so, I hope it may be of possible benefit to some who may escape my mistakes by knowing them. In the first place, perhaps I was wrong in not having council. It would have saved me some anxiety afterwards to feel that other shoulders were helping to bear the load of responsibility, but at the time I did not think it was necessary, nor do I now even. The case did not seem more difficult than many which I had conducted to a successful determination, and had the ether not given out just in the nick of time, would not have been.

Secondly, were the forceps applied at the proper time? I had remained and watched the woman all the forenoon. She had been thirty-nine hours in labor, the external parts rigid, os dilating slowly; she had lost two nights' sleep, and I feared exhaustion, and determined therefore to apply the forceps as soon as I could, and did so. If I had a like case again, I should try chloral; Dr. Playfair in the *Lancet* for February, 1874, calls attention to its value in the first stage of labor, where the os uteri is rigid and dilating slowly, with much pain. Fifteen grains repeated two or three times at intervals of twenty minutes or half an hour, diminishes the pain, dilates the os, and hastens labor. My experience in a few cases is confirmatory of this testimony.

Thirdly, as to the laceration of the perineum, I expected it, and was so sure of it that I told the nurse and husband, before applying the forceps, that it was inevitable—a remark I had never made before—but I expected it to stop at the sphincter ani. I have of late years been inclined to think that good forceps, properly applied, diminish rather than increase the danger of laceration, an essential point being, during delivery of the head, to keep the handles well forward between the thighs, so as to press the head snugly against

the pubes. In this case, the forehead came under the pubes, and we all know the disadvantage of that. I am not wholly sure but that I may not have carried the handles as far forward as I ought to have done. I thought at the time, I did, however, and you must recollect that I had not full control of the patient just at this time, owing to want of sufficient ether.

This want, gentlemen, allow me to repeat, was the main cause of all my troubles, and of the misery and narrow escape of my poor patient. It was not the difficulty of applying the forceps, nor extracting the child, although that was not an easy task, but my inability to control the movements of the woman that led to the injuries I have detailed. Had it not been for this, the only probable harm would have been an incomplete perineal laceration, which, with sutures and a week's rest, would have entirely healed. The moral is obvious.

It may be of interest to add that this lady has been a subject of vaginismus, not excessive, but to such a degree that copulation was by no means a pleasure. From the time of her recovery, till lately, this sensitiveness has been absent, but at last accounts seemed to be returning.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 17, 1874.

WE publish elsewhere a letter from Dr. H. I. Bowditch, in which he criticizes our course towards the American Medical Association. A most careful and dispassionate consideration of the matter has failed to show us reason for changing our views. We are perfectly ready to overlook the insult which the Association was induced to offer to the Massachusetts Medical Society, as the former has been the sole sufferer in consequence of it; but we do not admit that the resolutions passed in 1872 compel us to resume friendly relations, unless we are so inclined. The essence of an apology is an acknowledgment of wrong, and there is no word of this in the resolutions.

Our main objection is that the men who govern the Association and attend its meetings are far from fair representatives of the profession; that, consequently, the proceedings lack the dignity and discretion, and the papers, for the most part, the merit, that should characterize such a body. We cordially admit the former merits and services of the Association, as well as the high standing and character of its former leaders and supporters; but it has wofully degenerated, and Dr. Bowditch does not show the contrary.

There is no doubt that it is desirable to have some good organization to represent the entire country, and if a feasible method of reforming the present one can be devised, we will support it most heartily,

and we shall be glad of suggestions on the subject. We regret to differ from our esteemed correspondent, but we think it our duty to protest against the suggestion implied in the last sentence of his letter: "Upon the action of the District Societies, and not upon the Councillors, *whose power is simply advisory*, the whole matter depends." We can conceive no course more destructive to the good feeling at home and respectability abroad of our Society, than one creating dissensions between the District Societies and the Councillors. Such a course is further unnecessary, for every member has a voice in the election of the Councillors, and, if any of the latter do not represent the views of their constituents, they can, and should, be dropped at the end of their year of service. The Councillors are, for the most part, men of mature years and of high professional standing, to whom the interests of the District Societies may be safely entrusted. If this is not to be done, the very existence of the Council is an absurdity.

THE great feature of the past week, in Boston, has been the trial and conviction of Jesse H. Pomeroy, the boy murderer. The case is a very remarkable one and likely to be quoted as a precedent in future trials, when the defence is based on insanity. Jesse H. Pomeroy, not yet sixteen years of age, from his earliest youth has shown the greatest tendency towards cruelty to children and animals; to witness suffering appears to have been his delight. He was convicted of torturing several children smaller than himself, and, some two or three years ago, was sent to the Reform School for the remainder of his minority. Last February he was released, through the efforts of one of our "philanthropists," whose name has been very carefully hidden from public execration. In April, he enticed a little boy, Horace H. Millen, four years old, to a secluded spot, and murdered him after preliminary tortures too horrible to detail. He endeavored to conceal the body, but it was soon found, and, certain circumstances pointing to him, he at first denied but afterwards admitted the guilt, and confessed, also, another murder.

The evidence, apart from his confession, was conclusive, and the only possible defence was insanity. Drs. Tyler and Walker were the experts for the defence, and Dr. Choate, of New York, for the government, in rebuttal. Dr. Tyler testified that the prisoner had some symptoms of epilepsy, and that the apparent want of motive for his crimes implied mental disorder. On cross-examination, he stated that the gratification of a love for cruelty might be looked upon as a motive, and that the precautions which the boy had uniformly taken to prevent discovery were consistent with sanity and good mental capacity. Dr. Walker was less guarded, and testified that the boy

was insane at the time of the commission of the crime, but on cross-examination was apparently unable to give any reason for his views beyond the great atrocity of the offence. Dr. Choate testified that the boy was of good ability and aware that in committing his crimes he was doing wrong. He did not believe in an irresistible impulse to such crime. He thought the prisoner's mind peculiar in proneness to certain forms of sin, and in weakness to resist. On cross-examination, the witness stated that he thought the peculiarity was moral and not intellectual. He believed the prisoner sane at the time of the crime. After five hours' discussion, the jury returned a verdict of guilty of murder in the first degree, with a recommendation to mercy.

We are equally pleased and surprised at the result, for there are not many juries that would have performed their painful duty so faithfully, and have not been influenced by the attempt to establish insanity. The plea of insanity rested entirely on the difficulty of supposing that merely to gratify a taste for cruelty, a boy should not hesitate to commit such crimes. Now there is no doubt that the tastes of the boy are morbid, but they can hardly be called unnatural except in degree, as a pleasure in tormenting is very common among boys, and in this case it was merely exaggerated. The temptation to commit crime was great, the power to resist, feeble, but there is no reason to doubt that it was sufficient. The verdict is eminently just, and there remains only the dread penalty to be paid. The sooner it is done, the better. We have always favored the strict execution of the laws; but, in this case, there is more than punishment and example to be considered. It is necessary to protect the public against this monster. There is no place but the grave from which silly and reckless sentimentalists will be unable to free him. The very atrocity of his crime will make him interesting to these dreamers, whose philanthropy does not extend to his victims and their heart-broken families.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

REPORT OF OPERATIONS.

Service of Drs. Bigelow and Cabot. Saturday, December 5, 1874.

SINCE the last report (Nov. 14th), the following cases have been operated upon without ether:—

1. Lithotrity (2 *séances*).
2. Abscess, aspirated.
3. Abscess, aspirated.
4. Wen (of Scalp).

Ether was used in the following cases:—

5. Fistula Ani.
6. Fistula Ani.

7. Fissure of Anus and Fibroid Polypus. Rupture of Sphincter Ani and Excision of Polypus.

8. Hare-lip.

9. Club-foot. Tenotomy of Tibialis Anticus and Plantar Fascia.

10. Club-foot. Tenotomy of Tendo-Achillis.

11. Caries of Ulna.

12. Caries of Femur.

13. Necrosis of Ilium.

14. Warty Growth of Labium.

15. Wen of Back.

16. Nævus of Lip.

17. Cancer of Breast.

18. Tumor of Jaw.

19. Enchondromatous Tumor of Metatarsal Bone.

20. Abscess of Back.

21. Abscess, Palmar.

22. Abscess of Neck.

23. Stricture of Urethra; Divulsion by Voilemier's instrument.

24. Stricture of Urethra; " " " "

25. Sinus of Stump.

26. Lupus of Nose.

27. Felon.

28. Felon.

29. Felon; Amputation of Finger.

30. Felon; Amputation of Finger.

31. Anchylosis of Arm; old Dislocation at Elbow; Flexion.

32. Phlegmonous Erysipelas.

Lithotrixy.—This patient had been the subject of frequent renal calculus, with subsequent concretion in the bladder, without pain or inflammation, so that there was no occasion for ether. Dr. Bigelow remarked that the simple method of catching the stone in a bladder, moderately distended by water, was in depressing the posterior wall of the bladder into the hollow of the sacrum of the recumbent patient, leaving the female blade of the lithotrite in that position, while the male blade was withdrawn an inch or more. The stone, if loose, as it usually is, then rolls into the instrument. In fact, a stone may be caught and crushed in this way when so small that it is difficult to discover it with a sound. A lithotrite is thus a good sound. The practical termination of the work of a lithotrite is when the female blade is packed above the surface with fine debris. It then becomes difficult to catch fragments which escape from this smooth surface. The instrument must be withdrawn, emptied, and introduced again. Time is thus lost, and the urethra distended and irritated. A lithotrite is needed with a lateral motion of the extremity of the male blade, upon its stalk as a centre, to clear the instrument while in the bladder. Such a contrivance should not impair its strength, and should be subject to guides upon the handle, which should keep the blades parallel while used for crushing, and during withdrawal.

Phlegmonous Erysipelas.—A feeble, middle-aged man had been subjected to the application of a large number of sinapisms for supposed thoracic difficulty. He entered the house for a reddened patch, of the size of two or three hands, extending along the side of the ribs. In two days, this had been developed up and down the side of the body, and now extended from near the axilla to the crest of the ilium. Yet at only one point was there any fluctuation. This was opened, and a small quantity of pus escaped, but the cellular tissue was observed to be in a sloughy condition. The incision was prolonged, and the reddened integument was stripped, with the finger, from this slough so far as it could be discovered, and quite to its edges, leaving a wound, somewhat wider than the hand, extending from the axilla to the ilium. The patient has been well stimulated, and is now, at the end of a fortnight, doing well.

Fistula in Ano.—One of the operations for fistula was instructive; the patient presented himself with an ischio-rectal cavity, from which a large

slough had been detached. The cavity would have contained a hen's egg, which might have been easily lifted out through the patulous orifice. Dr. Bigelow remarked, in looking for a cause for this abscess, that he could find no aperture at its upper part that would admit a probe, but that as the regular position for such communication with the rectum was just above the margin of the anus, he would look there for it. After some examination, the point of the probe passed through a minute sinus, leading to the verge of the anus, where it was felt beneath the mucous membrane. Further cautious exploration discovered an aperture in this membrane, and the probe being passed out at the anus, was followed by a director, and the tissues were divided. Stress was laid upon the importance of discovering these original orifices into the rectum, and it was stated that fifteen minutes might be advantageously consumed, if needed in such exploration, which really constitutes the operation, as the subsequent incision is momentary. A probe often readily passes through the sinus in the sphincter, and is felt beneath the mucous membrane in the anus when a smaller probe is needed to discover the orifice in the latter. If the sinus is not thus traced, it may re-induce the disease. A recent fistula may heal, after operation, in a fortnight; an old one may not heal in years. In such a case, it may be desirable to excise a part of the infiltrated walls, although even this may avail little.

H. H. A. BEACH, M.D., *Surgeon to Out-patients.*

BOSTON CITY HOSPITAL.

Service of Drs. Cheever and Thorndike.

TUESDAY and Friday, Dec. 8th, and 11th, 1874, the surgical operations were as follows:—

1. Tumor of Face.
2. Cancer of Breast.
3. Mammary Abscess.
4. Epithelioma of Nose.
5. Epithelioma of Lip.
6. Necrosis of Tibia from Compound Fracture.
7. Amputation of the Thigh.
8. Necrosis of Radius.
9. Operation for a Deformity of the Lip.

1. This tumor was a recurring myxoma, of six months' growth, in a young woman, 18 years old. It was situated beneath the mucous membrane of the left cheek, and extended up under the zygomatic arch. It was removed from inside the mouth by a crucial incision, and consisted of about four drachms of soft, tenacious, gelatinous substance, which the microscope showed to be a series of fine, delicate, wavy fibres, rounded, mucous-like corpuscles and fat. The first growth was removed by Dr. Cheever, two years ago, in the same way, and was of the same nature as the present one. Dr. Cheever remarked that this is not a malignant growth, like cancer, for, although it has a tendency to return, it does not involve the neighboring structures, nor does it infect the constitution. This specimen comes under the class of hyaline myxoma. According to Bryant, "in the soft myxomas, where the cell-element predominates, the risks of a return are great."

3. An enormous abscess of the breast, of five weeks' duration, in a woman, 45 years old. She has had no children for seven years, and knows of no local injury. A free incision gave exit to a pint and a half of thick, brownish pus. The breast was strapped and supported by a sling.

4. Epithelial disease of the nose, of seven years' growth, in a man, 65 years old. It began as a small crack or abrasion, "where a new pair of brass-bowed spectacles had rested," and in spite of caustics, and various other methods of treatment, it had become an extensive fungous mass, involving the tip, all the lower part of the left, and half of the right, side of the nose, nearly as high as the lower lid. No glandular complication. The growth was entirely removed by the knife; it was necessary to remove a great part

of the nose, but none of the bones. A section of this growth under the microscope showed the whorls, or nests of epithelium-like cells, characteristic of epithelioma. Dr. Thorndike proposes to remedy the deformity by a plastic operation, should the parts get into a favorable condition.

7. Mr. J., aged 25, was run over by the steam cars, October 19th, 1874. His left hand and leg were crushed, and he got a compound fracture of the frontal bone over the outer portion of the left orbit, a piece of the outer table, an inch and a half in diameter, being depressed. Dr. Fifield amputated the forearm at the middle third, and the leg at the knee-joint, by anterior and posterior flaps. Esmarch's bandage was used in both operations, and the loss of blood was slight.

Besides having extensive suppuration, all over the left side of the head, necrosis and great prostration, he had, also, sloughing of the leg-flaps, so that about four inches of the lower end of the femur were exposed. The lower end of the stump is now covered with a large mass of granulations, the bone being nearly closed in, but nature is evidently unequal to the task of healing so large a surface.

Dr. Thorndike amputated the thigh at the middle third, by the circular method, using the rubber bandage and cord, and losing not over an ounce of blood.

8. A boy, 12 years of age, was injured by a sled on the right forearm, three years ago; this was soon followed by periostitis and suppuration. The joints were not implicated, and the hand was in a good condition, the fingers being flexible. Dr. Cheever enlarged the openings, and removed a piece of the shaft of the radius five inches long; this being all that was loose, or ready to be removed, without too much violence. Esmarch's bloodless method was employed, the hand and arm being tightly wound with a rubber bandage. But, instead of the rubber-tubing, a Petit's tourniquet and roller-pap were applied over the brachial vessels. Dr. Cheever preferred this, in the delicate arm of a child, to the risk of injuring the brachial nerves by tight strangulation with the rubber-tubing.

The hæmorrhage was easily controlled by a compress and bandage, after the tourniquet was removed, the operation itself being perfectly bloodless.

9. For a history of this case, see this JOURNAL, April 2d, and June 11th, 1874. The patient is a young woman, 18 years of age, who had a cleft, extending through the soft, and three-fourths of the hard, palate. The former was closed by Dr. Thorndike, in April, in the usual way, and the latter in June, by Fergusson's method. With the exception of a small pinhole at the junction of the hard and soft palate, both operations were successful. The roof of her mouth is broad and well shaped, and the voice has considerably improved. The patient has an unsightly congenital scar and notch on her upper lip, on the same side with the cleft in the palate. It looks like a bad result of a hare-lip operation, but she has never had a hare-lip, and, therefore, no operation for one. Dr. Thorndike cut out the scar, pared the sides of the notch, leaving one side with a flap and the other without, and very carefully apposed the parts with wire and silk sutures. The deformity was completely removed.

GEO. W. GAY, M.D.

Correspondence.

AMERICAN MEDICAL ASSOCIATION.

MESSRS. EDITORS,—Permit me to say a few words in support of the above-named, unfortunate Association. I use the epithet because, at the present time, if we may judge from your JOURNAL and from the action of the Councillors of the Massachusetts Medical Society, it seems to have few friends in Massachusetts.

I was not one of the original founders of it, but I have watched, somewhat closely, its course from its birth.

I also recollect, before its birth, how entirely separated from each other were State Medical Societies, where any existed. The same assertion may be made of individuals of the profession in different parts of the Union. We did not know each other as we do now. The Association arose under the inspiration of one man, and it has been sustained more by his influence than by that of any other individual. I allude to the able, energetic and accomplished physician, N. S. Davis, of Chicago. At first, his labor met with secret or open opposition from many of the older members of the profession in various parts of the country, especially in this State. Massachusetts is only repeating her own earlier history by the position she now takes. If our State had followed the counsel of the late Dr. Enoch Hale, and of some of his compeers, she would have sent no delegates to the earlier meetings. That policy, which would have separated Massachusetts from the Medical Union of these States, was fortunately rejected. And yet your JOURNAL and the Councillors of the State would virtually assume the same position at the present time. You say, in one editorial, that the Society is "rotten," and in your last issue you claim, among the meritorious acts of your editorial career, that you have not lavished "facile eulogy" upon the American Medical Association. Now I am willing to grant that the Association has done a few things of which every one of us disapproves; that, under the influence of some enthusiasts, it has passed votes, which I sincerely wish it had never passed; votes which I thought at that time, and now, were improper and unjust. I grant that meetings have been, at times, disorderly, and that a selfishness worthy of the wildest political gathering has been displayed. Nay, more, of late, all of us have seen, with deep regret, creeping into the Society some of the rather low methods pursued in political meetings. Men have *seemed* to be voting for themselves, and they have, at least, somewhat openly expressed their claims for office. I grant that, on the part of some few persons, the meetings have also, at times, been disgraced by a drunken rowdiness, unworthy of gentlemen. Give me leave to say that there never was a worse meeting in this last particular than that which occurred in Boston in 1865. That riotous gathering on one of the islands of the harbor, and while under the patronage of the city, was led on by the members of the profession belonging to *Massachusetts*! Granting all these drawbacks, I deny that the Association is "rotten," or that it is unworthy of support.

The Association has existed one quarter of a century. Under the leadership of its distinguished originator, it has grown up strongly, and has done infinite good to the profession throughout the country. It has accommodated itself to the changes which experience has from time to time shown to be necessary in its organization. It has published articles, some of which are valuable, if a great many are not so. It has healthfully stimulated the profession in all parts of our country, and States where no Medical Societies had previously existed have been, by its example and by its precepts, led to form such State Societies. It has adopted a Code of Medical Ethics for the profession of the country. Above all, it has been the means of bringing together some of the best of our profession, men whom we had heard about, but never would have met save at the meetings of this Association, now so scouted at. Some of my sweetest friendships, I have gained only at these meetings; or, if I did not first become acquainted with gentlemen at the meetings, our friendship was cemented at them. I shall never forget that I owe to that held in 1849, at Baltimore, a long and warm friendship with the late Dr. P. C. Gaillard, of South Carolina, than whom I never knew a man nobler in character, or a more thoroughly accomplished gentleman and physician. Nor do I forget that to the American Medical Association I also owe my acquaintance with that wise man and surgeon, the late Dr. Knight, of Connecticut. As a presiding officer, calm, prompt in his decisions; and how friendly and gentle in private intercourse! Really, I cannot understand why men of Massachusetts dislike the American Medical Association.

I have heard but two reasons, viz., first, that the Association has been governed by a set of inferior men, or by men who go to the meetings for their own selfish ends. If this be so, I do not know it. If you look at the

list of Presidents, you will find two from Boston, both of them above reproach in reference to their professional standing, and, in every respect, proper representatives of the Medical Profession of the country. I allude to the late eminent surgeon, Dr. J. C. Warren, and our present living associate, Dr. D. H. Storer. Among our Presidents, certainly, the names of Chapman, of Philadelphia, Stevens, of New York, Warren, of Boston, Mussey, of Cincinnati, Moultrie, of Charleston, Wellford, of Richmond, Knight and Ives, of New Haven, Pitcher, of Detroit, Miller, of Louisville, Pope, of St. Louis, March, of Albany, all of them among the great dead of our profession, and those of others now living, but whose names shall not be mentioned by me, some of whom are among the best of our profession, and the peers of any in any country, prove that, if the Association has been sinking year after year into the hands of an inferior class, it has generally selected no inferior men as its file-leaders. The second objection, and, in the minds of some men of Massachusetts, the stronger objection of the two, is that the Association, at its meeting in Washington, in 1870, grossly insulted the Massachusetts Medical Society. I grant the fact. It was indecorous, on the part of the Association, to exclude delegates from any sovereign State from its meetings under such a flimsy pretence as it excluded for a time those from Massachusetts. The resolution, it will be remembered, however, was carried through the meeting by the energy of one or two *Massachusetts* men.

But, granting that an insult was then offered, was not an ample apology tendered unanimously at the meeting in 1872, at Philadelphia? I submit that, after an insult has been offered and ample reparation made, it is the part of gentlemen to resume at least the semblance of friendly relations.

I cannot forbear, in this connection, remarking that, possibly, the sting of that really insolent rebuke from the American Medical Association was the stimulus that finally goaded our Massachusetts Society to the expulsion of the homœopaths from membership, and that at an expense of several thousand dollars. Moreover, I may add that if the action of the American Medical Association, in the matter of homœopathy, contributed in the least to this end, so *desirable in the eyes of many*, they ought rather to sustain than to try to destroy it, on that account.

In conclusion, I wish to express the hope that the several District Societies of this State will send delegates to the next meeting of the American Medical Association, which is to be holden on the first Tuesday of May next, and during the three following days, at Louisville, Ky. Let each society send its *best men*. If that were always done throughout the country, we should hear but little complaint of the American Medical Association. Upon the action of the District Societies, and not upon the Councillors, *whose power is simply advisory*, the whole matter depends.

Respectfully, Yours,

HENRY I. BOWDITCH.

Boston, Dec. 9, 1874.

Medical Miscellany.

OXALIC ACID is highly extolled by Prof. Ceuni, Prof. Giurley and Dr. Taccani as a local application to the throat in cases of diphtheria.

DR. BAJARDI, an Italian anatomist, has found the superior thyroid artery arising from the common carotid in 37 out of 131 cases. Quain found this anastomosis only 41 times in 292 cases.

DR. JAMES H. McDONALD, of Newtonville, appointed Asst.-Surgeon 9th Regt. Inf., M.V.M., has passed a successful examination before the Board of Medical Officers M.V.M.

FOUR CHILDREN, of ages varying from ten months to two years, have recently died at Romford, England, from the effect of "teething powders," administered without medical advice.

TREATMENT OF EPISTAXIS.—Dr. W. I. Wilson, U. S. A., reports the successful employment, in two cases of severe epistaxis, of a solution of the liquor ferri persulphatis, one part to three of water, introduced into the nostril in the form of spray, by means of the ether-spray apparatus. The bleeding was checked in a few seconds.—*Philadelphia Medical Times*.

IRON IN LARGE DOSES.—At an inquest recently held in Manchester England, on the body of a shoemaker, who was an inmate of the Prestwich Lunatic Asylum, and who died suddenly, the *post-mortem* examination showed that the stomach contained one pound ten ounces of nails, some an inch and a half long, several pieces of iron half an inch square, and an awl, without a handle. His death resulted from peritonitis.

MRS. WINSLOW'S SOOTHING SYRUP.—Dr. R. L. Harlow recently read a paper before the Androscoggin Medical Association, in which he justly denounces this poisonous mixture, that has not only killed its hundreds, but is spoiling the health of thousands of children. He states that the amount sold yearly contains over fourteen million grains of morphia, which amount is administered to infants without professional advice.

EPILEPSY CURED BY EXCISION OF A NEUROMA.—At a recent meeting of the Clinical Society of London, Mr. Barwell related an interesting case of a soldier, aged sixty, who had lost an arm in India, in 1846, two years after which epilepsy set in. On examining the stump, a neuroma was found, any pressure on which produced a fit. These fits became at length so numerous, that Mr. Barwell was induced to cut down upon and remove the neuroma. This operation was performed August 7th, and at last accounts (October 24th) the man had had no more epileptic fits, and was much improved in appearance and intellect.

RUPTURE OF THE BLADDER.—A boy, aged eleven years, entered Roosevelt Hospital, July 8th, having been injured July 2d, by receiving a kick in the perineum. There was not much pain complained of at the time, but some hours after he was unable to pass his water, though he did so subsequent to the injury. In the course of a few days the urine became bloody and later purulent, and the patient succumbed August 11th, having manifested symptoms of pelvic peritonitis, diarrhoea and pleurisy. At the autopsy, a rupture was found at the side of the bladder, near the neck, large enough to pass a lead pencil through. The urethra was also ruptured. That the patient did not die shortly after the injury is to be accounted for mainly by the reason that the urine did not escape into the peritoneum.—*New York Medical Journal*, Dec., 1874.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending December 5, 1874.

Boston, 135; Worcester, 13; Lowell, 18; Milford, 2; Chelsea, 5; Salem, 11; Lawrence, 19; Springfield, 1; Lynn, 9; Gloucester, 4; Fitchburg, 5; Newburyport, 5; Fall River, 16; Haverhill, 4; Holyoke, 7. Total, 255.

Prevalent Diseases.—Consumption, 45; pneumonia, 24; scarlet fever, 15; typhoid fever, 11; croup, 5; diphtheria, 5; measles, 6.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 12, 1874. Males, 54; females, 79. Accident, 4; apoplexy, 1; disease of the bladder, 1; inflammation of the brain, 1; disease of the brain, 2; bronchitis, 5; cancer, 1; consumption, 28; convulsions, 2; croup, 1; debility, 3; diarrhoea, 3; dropsy, 1; dropsy of the brain, 4; diabetes, 1; scarlet fever, 5; typhoid fever, 1; gastritis, 2; disease of the heart, 6; hernia, 1; hæmorrhage, 1; disease of the hip, 1; homicide, 2; intemperance, 1; disease of the kidneys, 1; congestion of the lungs, 2; inflammation of the lungs, 15; marasmus, 4; measles, 3; metritis, 1; old age, 7; paralysis, 4; pleurisy, 1; premature birth, 2; peritonitis, 1; pyæmia, 1; puerperal disease, 2; purpura hæmorrhagica, 2; rheumatism, 2; scrofula, 1; tabes mesenterica, 2; tumor, 2; ulcers, 1; unknown, 1.

Under 5 years of age, 39; between 5 and 20 years, 11; between 20 and 40 years, 37; between 40 and 60 years, 20; over 60 years, 26. Born in the United States, 82; Ireland 35; other places, 15.

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Original Communications.

ILLUSTRATIVE CASES IN ELECTRO-SURGERY.

By W. F. HUTCHINSON, M.D., of Providence, R. I.

BETWEEN a bloodless operation and bloodless operating there is a wide difference—a missing link, and one which to-day remains as much an unsolved problem as the Darwinian ultimatum. It is true that Esmarch, with his elastic bandage, has succeeded in preventing the loss of blood during the comparatively small period of the operation occupied by the passage of the knife through the tissues and the ligation of vessels; but there remains a secondary stage, the major part, so far as time goes, of the whole, wherein capillary hæmorrhage is not controlled at all—that stage usually occupied in allowing the surface to glaze over, preparatory to closing the flaps, supposing an amputation referred to. The long and steady compression to which superficial vessels have been subjected seems to destroy their power of contractility, and they remain patulous and oozing for some time; so that, as I have lately been informed by a prominent surgeon, there is, upon the average, and counting all steps of the operation, as much loss of blood as when only the ordinary tourniquet is employed. This is certainly bloodless operating, but by no means a bloodless operation, the latter term belonging only to electro-surgery. Here, in no step, nor in any stage of any operation, is there necessity for the loss of one drop of blood, nor for any of the prostration dependent upon such drain. It is my purpose, in the following record of cases, to cite one which will fully illustrate the value of galvano-surgery, where a bloodless operation is imperatively called for. Aside from the absence of depletion, there is another advantage in electrical operating—that of avoidance of nerve shock. Whether the current used compensates for the vital force expended in meeting the shock, whether a certain portion of it prevents any loss of nervous force by its inherent similitude and rapid transference thereto, or however else it acts, the fact remains—that there is actually no nerve-shock, no systemic prostration, after even major operations conducted in this way. It is difficult to over-estimate the immense advantage which these two points give to electro-surgery over general surgery, and there can be no doubt, all things being equal, which plan would be preferred by the intelligent surgeon. Unfortunately, all things are not equal. The necessary apparatus is cumbersome, excessively liable to get out of order, costly, and requires an adept, or rather two adepts, to handle it. It cannot

be readily transported from place to place, and requires an elaborate preparation before it is ready for a large operation, involving a thorough knowledge of electro-physics, as well as of mechanics. Until other instruments are devised besides those now in use, but a few special operations can be performed, and the value of galvano-surgery is, as yet, exceedingly limited in its boundaries. Still, there are certain operations, demanding conservation of blood and nerve power, wherein the new surgical agent very beautifully displays its powers, and makes good its claim to a position in the armamentarium of the modern surgeon. Notably among these, are removals of morbid growths from the larynx, pharynx, vagina and cervix uteri; and there are few, who, having witnessed the case with which these operations can be done, where no hæmorrhage obstructs a view of the parts as the division of tissue progresses, will be apt to return to the old plan when the new can be made available.

No man living has had greater experience in these operations than Prof. Byrne, of the Long Island College Hospital, and his testimony is to the same end.

CASE I.—About July 1st, of the present year, I was consulted by Dr. A. W. Nelson, of New London, Connecticut, in regard to a case which he represented as fungus hæmatodes of the left breast, in a lady, about seventy years of age, who was still tolerably strong. Dr. Nelson had already removed the growth twice by the ordinary operation, taking care to allow the wound to heal by granulation the second time. Both excisions were followed by rapid growth of the fungus, which assumed its former dimensions in from four to eight weeks, and he was desirous of having it treated with the galvano-cautery. Mrs. P. came to Providence for an examination, and, although opinions differed as to the character of the tumor, there could be no dispute as to the necessity for its immediate removal, as the surface of the mass was becoming putrescent, and septic poisoning was imminent. It was justly considered that her age and the fact that she had lost considerable blood during the last operation precluded another resort to the knife, and it was decided to operate with the battery, all the consulting surgeons assenting.

On the 23d of July, Mrs. P. presented herself, accompanied by her physician, Dr. Nelson, and Surgeon Hasson, U.S.A., of Fort Trumbull. There were also present Drs. Robert Millar, W. H. H. Traner, and my assistant, Dr. Browning. The patient was etherized, and the growth, distinctly pediculated and streaming with fetid pus, was looped with No. 26 platinum wire, attached to Middeldorp's galvano-ecraseur. Sufficient battery power was turned on to heat the loop to a dull redness, it was slowly tightened, and, in ten minutes, the mass was removed, without the loss of one drop of blood. It weighed one pound and a quarter. Afterward, the base, which looked like the greyish eschar formed by nitric acid, was thoroughly electrolyzed with a 32-cell battery and needles, enough tissue being removed to insure a healthy border to the wound, the second stage of the operation lasting eighteen minutes. Patient recovered well from the anæsthetic, and complained of neither pain nor distress, evincing lively satisfaction in knowing that the growth was removed.

She walked to her carriage, and to her chamber, on the second floor, upon arriving at her boarding-house. There was no prostration, and

she was not confined to her bed a single day. The wound progressed finely towards healing for several days, giving her but little pain or trouble until, upon the sixteenth, I discovered the commencement of the return of the growth, thus verifying Dr. Nelson's original diagnosis, in which I had concurred. Owing to her absence from home (she resided in Hartford, Conn.), and her great desire to be once more with her friends, added to the certainty of an unfavorable termination, further operative interference was discouraged, and she left town on the 8th of August, at which time the fungus was about the size of an English walnut, and rapidly growing. Mrs. P. lived until October, the 25th, at which time she passed away, painlessly and resigned. Here, then, was a case where an ordinary surgical operation was unadvisable for the third time, not only on account of the determined opposition of the friends of the patient, but because of her advanced age, her feebleness, and the natural disinclination of her skilful medical attendant to repeat a procedure which had twice signally failed. In my own mind, there was no doubt that it would fail again; but at least one of the consulting surgeons doubted its malignant character, and it was possible, at all events, to prolong life. This was done, as the result shows, for a very considerable time, at least three months, and thus much was gained.

CASE II.—On the 20th of June, Dr. Geo. E. Mason, a well-known and prominent surgeon of this State, called at my office with a patient of his, named Michael M., aged 27 years, who was suffering with a tumor, for which he supposed an electrolytic operation would afford the only probability of a cure. It was an aneurismal varix, situated upon the right lower jaw, the size of a large orange, extending from the symphysis to the ramus in an antero-posterior line, and involving the whole of the cheek above, with a portion of the antero-superior cervical triangle. It was congenital, and, beyond the unsightly appearance which it gave to his countenance, had troubled him but little, until within a few months, when it commenced rapidly to enlarge, and cause extreme pain, neuralgic in character.

In appearance, the tumor was purplish, the skin extremely tense, and readily emptied by steady pressure, which, however, caused great anguish. From its rapid increase in size, and from the fact that the skin covering it was becoming thinner from internal pressure, operative interference was evidently urgently demanded. And equally evident was it that no ordinary plan would suffice. Every branch of the facial artery communicated directly with the cavity of the tumor, as well as every other vessel of this extremely vascular region. Compression, from reasons above mentioned, was out of the question, and ligation of any vessel equally so. It seemed to be a question between an electrolytic operation and the uncertain plan of injecting into the tumor powerful astringents, both having, for an objective end, the formation of a clot which should afterwards be gradually absorbed. The advantages of electrolysis over injection were many and strong. Thus, no foreign material was to be introduced, possibly to be passed into the circulation, producing systemic effects; no danger was to be incurred from the possible admission of air into a vein, several of which opened directly into the varix; time was not to be lost in experimenting with various astringents, in order that the least harmful might be selected, and, finally, even so skilful a surgeon as Dr. Mason

hesitated to undertake the dubious operation, when electro-surgery was so accessible and so sure.

Accordingly, on the 1st of July, I operated as follows, with the following gentlemen present, viz.: Drs. Mason, Millar, Mitchell, Carr, O'Leary, Perrin, Browning, and two medical students. The patient, seated in an operating chair, was etherized, and six needles, connected with the positive pole of a 32-cell battery, were introduced into the base of the tumor, forming a circle in such wise that the points were distant from each other about one inch in the centre, and the integument protected from galvanic action by the insulating material covering the needles up to half an inch from the end. The negative pole was attached to a sponge-covered carbon-point, and, being applied over the surface of the tumor, the current was turned on from six cells, and rapidly increased to ten. Bubbles of hydrogen began to escape beside the needles, and the tumor to enlarge from the evolution of gas, when I discovered that the negative pole had, in the few seconds already passed, vesicated the skin deeply. It was at once removed, and a large, pear-shaped needle substituted, which was introduced through the skin so as to leave as much distance as possible between the poles. Electrolysis at once recommenced, and in twelve minutes was complete, every portion of the sac being filled with a firm clot, and the surface changed to a livid white. Patient rallied well from the ether, and went home in the horse car, taking with him a simple, evaporating lotion, to keep the parts cool. Two days afterwards, the portion of skin which was blistered began to slough off, but did not in any way interfere with general absorption, which proceeded steadily until the fourth week, when it was complete, and the tumor had entirely disappeared. There is, at the present time, no trace of it left, the small needle-scars being concealed by the beard. During the entire operation, not one drop of blood was lost, and the patient felt, the same evening, as he expressed it, "first class."

These two cases have been selected from a rather large list in my case-book, as representative ones in many respects. They are of equal magnitude with any which I have been able to find any account of, either in Europe or America, and illustrate, very well indeed, the principles of bloodless operations. The unfortunate *dénouement* in the first case was inevitable in any event, and it is believed was delayed some time by employing this form of procedure; and no one can doubt that the brilliant success in the second was directly and solely attributable to the agent used, and, but for the objections raised before, no other form of operative interference would be justifiable in any form of disease where the dangers of depletion and nerve shock would be an important factor in deciding a surgeon against an operation. The instruments used in electro-surgery are so rapidly being improved as to render it a matter of some difficulty and no small expense to keep even with the onward march; but one day, there will be in the hands of every surgeon, a form of battery, at once portable, certain and cheap, and then it will be a matter of wonder that we lost so many of our patients in the days gone by.

THE DUTIES AND RELATIONS OF DISTRICT MEDICAL SOCIETIES.*

By EPHRAIM CUTTER, M.D., of Woburn.

GENTLEMEN: At your last meeting I failed to present you with a promised paper, on account of sickness in my family; and now I do not wish to crave further indulgence on account of an accident, which has caused me a six weeks' confinement to bed. I rather would seize this opportunity (as I cannot personally be present with you) to make my communication in the form of a letter, which allows me to say some things in a more direct, plain, and familiar style, than in a didactic paper. The topic to which I beg leave to call your attention, is that of "labor fields" for our society; or, to put it more broadly:

MEDICAL SOCIETY LABOR FIELDS.

It has always seemed to me that our medical societies possess a vast amount of latent power which by management might be utilized in beneficent work. That is, there are a large number of members whose powers are not brought out. They are integral parts, and when inactive, the whole organization does not perform its possible work. There is always a generous contribution when every one puts in something, and the effect upon those interested is invigorating and inspiring. This duty of contribution from each one has, when performed, a very salutary effect upon the contributor. He feels a greater interest in the object. He looks more closely and carefully to the contributions of the others. Oftentimes he finds a missing link to complete the chain of his own observation, by which he arrives exactly at the truth. But it is my purpose to point out certain fields in which medical societies may labor, the method of labor, and the manner in which they can offer an opportunity to each member to take a part, leaving the question of utility to be settled as we go along.

The first field of labor to which I would call your attention, is that of reports of *practical experience*. Not that this field is not already occupied, but that it is not occupied fully and thoroughly. The idea is to have an exercise in medical meetings which corresponds to that of the "experience" meetings of some religious denominations. Each member is expected to relate some item of his personal experience in the practice of medicine. He alone is to be the authority of his statement. Time limited to five minutes or less for each reporter. No discussion allowed. No strained or classical language required. Only the simple terms of short sentences, such as pass between friends alone. Let individuality come out. Let each reporter be kept strictly within his allotted time, and let the next one commence immediately after the previous one has ceased to speak. When this course is pursued, it is astonishing to see how each one is quickened into mental activity, as the short, plain and practical statements are made. Great interest is excited as the conversation goes on, by sudden and startling turns coming up unexpectedly from quarters where the field was supposed to be barren.

This plan of "experience meeting" has been tried in therapeutics in the late meeting of the American Medical Association. It was a

* A letter to the Middlesex East District Medical Society, November 4, 1874.

success. It produced an animated scene of interest. The amount of experience unfolded, the depth of penetration, the breadth of observation, and above all the practical value of the statements elicited, were very gratifying to the proposer. The idea of hundreds of learned and skilful physicians spending time and money to go hundreds, and in some instances thousands, of miles, to meet in convention for comparison and exchange of ideas, and then spend their time in discussion of questions of medical police, by-laws and constitutions and junketings, is rather humiliating—even more so, when we reflect what a rich and full treasury of items of information they might have left behind them if they would each of them have contributed three-minute statements of truthful, honest, personal experience which they deemed of the most value to themselves.

It will be noticed that this field of labor is made very simple, made up of anything of personal experiences. If the *esprit de corps* of the society would bear it, it might advantageously be confined to one subject, given out before hand, if every member would report upon it. *The reporting of each member constitutes the main interest in the exercise. It is not the subject.* How such subjects might thus profitably be investigated, may be illustrated by referring to the history of the therapeutical investigations of your Society into the use of *veratrum viride*, some years ago. There is no doubt that this work was well done and well received, as its results are regarded as authoritative by scientific men. To take a particular case:—Suppose that the Massachusetts Medical Society in each district should investigate the therapeutical properties of ozone, every member testing it, and reporting at a district meeting. The secretary could combine the verbal reports in one, digesting and classifying the results, and then sending them to the secretary of the parent body, who would combine these in a compact, decisive report, to be read at the annual meeting. Would not such reports be valuable, and sought after?

I suppose some would say that this is impracticable, because physicians will not have confidence in each other, because of jealousy or contempt. Not all would be honest enough to tell the truth, or to believe that what was reported was true. If this be so, what a sorry figure does our noble profession present? I deny it.

Another field of labor is, the *supply of educated nurses*. It is a matter of congratulation that one of your number has initiated a movement which will give a supply of nurses educated at the Massachusetts General Hospital, but the supply will be so limited that, practically, it will not meet the demand for skilled laborers as nurses. It seems as if every member of our organization should take a deep interest in a matter which so vitally concerns his professional success. The whole labor of the physician can be annulled by bad nursing. How would it answer for each member to furnish to the secretary a list of nurses, and let him embody the record into one, have them printed, and distributed to each member? Then might not there be a committee of the Society—say the Censors—who should personally, or otherwise, examine into the qualifications of the nurses, and those who were found to be qualified should be so designated on the list, and should be preferred in selection and recommendation? In other words, have a sort of procedure like that pursued by Harvard College in their examination of women. There might be some one appointed to give

occasional instruction to persons desiring to become nurses, just as was done at the beginning of our late war. The mere fact that physicians were giving their attention to this subject would have a salutary influence upon the nurses, and would enhance the reputation of the profession.

The wonderful success attending the daily reports of the meteorological condition of stations scattered over the country, is a good example of what might be done in medical societies in the *reporting of the prevalence of disease and its probabilities*. Reports of the state of the weather, laborious and careful ones too, have been made for many years, but, being isolated and non-contemporaneous, they have practically amounted to nothing but examples of patient, faithful industry. The systematic contemporaneous observations of a large number of coöperative observers of the weather has produced the wonderful prediction of the weather for the United States, so that "Old Probabilities" is consulted by the physician to see whether he shall ride in an open or covered carriage; and, on the other hand, the system that makes "Old Prob." possible is being adopted by other nations. Is it too much to hope that if medical societies everywhere should honestly adopt a similar field of labor in relation to epidemics and other diseases, the laws of their visitation and spreading would be ascertained, so that the predictions in relation to them would be as valuable and interesting to physicians as the weather reports are now to physicists?

In this field also comes the reporting of cases of disease, not deaths only. Suppose this society had continued the reports of cases of zymotic diseases, so auspiciously kept up for seven years. Suppose, also, that other medical organizations had done the same. Who doubts that the information thus obtained would now be regarded as the most valuable and authoritative? This system requires that each member report his cases annually. Thus he makes a contribution which is an integral part of the whole. His contribution is just as valuable, necessary and important as that of any one else. There is a sort of true republican equality which does away with invidious distinctions and exalts all into a uniform character of excellence. I know of no exercise which so much includes and compasses the true, legitimate and healthful exercise of the powers and faculties of medical societies as this very reporting of statistics of cases of disease.

Another field of labor is the *suppression of quackery* by proper legislation in this State. "It is done in other States, why not in this?" was pertinently asked by a physician the other day. It is not enough to fulminate ridicule and exposure in our annual ante-prandial discourses. It is not enough to write boldly about it. The disease of false medicine is too old, too chronic, and too pleasurable to be kept in check (it can never be eradicated as long as human nature exists as it is) by single, isolated, uncombined efforts. It requires coöperation, contemporaneous, wide spread as the evil, and equally persistent. Our medical society might discuss the subject, every member taking part and declaring some opinion. A committee might be chosen to investigate further and report some method of action. When this is submitted it should be discussed, every member bearing some of the labor of digesting and correcting. The final adoption should be perfectly unanimous. A statement of this action should be sent to each sister

society, inviting attention and coöperation in a similar manner. Suppose they discuss and adopt the proposition, and when the time for the annual meeting of the parent body comes, all unite in presenting the matter for adoption. Can any one doubt that our laws would be favorably modified in relation to quackery, or any other thing, when all the influence, direct and indirect, of twelve or thirteen hundred educated medical men all over the State is combined and exerted at one time unanimously in relation to it?

Besides this, the laws would be executed. For with such a grand, united influence, public opinion would be healthily formed and so strongly set that our courts would not dare to allow the law to become a dead letter, as unfortunately so many of our written laws already are. But whose fault is it, if not in the state of public opinion and the causes that make it?

Directly in connection with this is the making the employment of *medical and surgical experts* by plaintiff and defendant illegal, and the substitution of experts appointed by the courts. It is well known that, in medico-legal trials, scientific testimony is made to appear irrelevant or apparently contradictory by the present plan. Doctor is pitted against doctor, surgeon against surgeon, chemist against chemist. One may be a thorough scientific master, the other an ignorant tyro with a degree. The former may make an assertion based upon long, intimate and accurate personal observation, and the latter deny it *in toto*, his assurance being inversely as to actual knowledge; and yet, in the jury-room, the unblushing ignorance of the latter may outweigh the modest knowledge of the other. Then it is human nature for each to defend the side upon which each is retained. They may both be *truly* experts—as a child would say—still the scientific conflict is not apt to be creditable to our art, and the end of justice is liable to be defeated. To bring the case nearer home, any one of your number may be threatened (some already *are*) with suits for malpractice. Under the present system, is the outlook comfortable of having justice administered aright? The plaintiff summons so-called doctors, irregular ones it may be, who swear in the strongest terms, as *experts*, that the defendant has culpably done a great wrong, for which he should be mulcted in heavy amounts. The defendant's experts testify to the contrary, on the law and the evidence. How can a jury be expected to render a righteous verdict? How much better it would be to have a scientific, impartial commission, appointed by the court, to decide the technical points! Would not the defendant feel better? Would there be drawn down on the profession the present reproach as to their experts? In my opinion, the matter should be taken up like that suggested in relation to quackery. It would not be long before a change would be effected, removing, in a measure, the unpleasantness of the present situation.

Patronage of Original Investigation into the Causes of Disease.—In this country, patronage is not extended to original investigators as it is in the old; our government does not liberally reward inventors and discoverers by monetary grants as does the English. If Jenner had been born, and conducted his researches, in the United States, it is very doubtful whether he would have received the liberal fortune that was voted him by government. The action of Congress, in relation to the discovery of anæsthesia, clearly shows how unwilling our rulers

and legislators are to award money, titles or distinction upon any benefactors of the human race in the medical line. It is so in relation to other things. Not long ago, the English government awarded £20,000 to an inventor of a brake for locomotives. If this individual had made this improvement in this country, he would have looked in vain to Congress for \$100,000.

Now, the question is, do not original investigators into the causes of disease need encouragement or patronage? I think that they do need it. They have to possess a good deal of enthusiasm and sacrifice, to follow out the difficult paths of research. It is to be supposed that they have the gifts for such work, or their inclinations would not have led them into it. In the absorption of their powers in their explorations, their time and talents are taken from the routine business of their profession. By this, their support is cut off, for investigators are not always rich. Or, if they practise their profession for support, just so much vital force and energy is abstracted from the pursuit of their investigations; so that the cause of science is a loser, and with it humanity.

Well does Hamerton ask, where would have been the splendid researches and additions to knowledge made by Michael Faraday, had not a sinecure position been conferred upon him, which gave him a liberal support, and rescued him from the drudgery of poverty?

But suppose our laborer has overcome the obstacles of poverty and distraction, and comes forward to announce his discovery, how is he apt to be received? It seems to me that his situation is often very much that of an Indian captive running the gauntlet. One doctor hits him a clip with saying, "Oh, that's an old thing revamped!" Another assaults him with, "That's exploded years ago!" Another says, "Simpson and I tried it, and it failed!" Another, "That's my invention!" And so on through the double line of hitters. Sometimes, ridicule is thrown at him. Sometimes, one, more hardy and self-possessed, will, with a learned article, explode the poor fellow, as with a mine of gunpowder, and the rest, seeing so much of an exhibition, unthinkingly encourage the exploder, and the discoverer feels ashamed, and retires with disgust.

As the writer looks at the matter, it stands thus: Every medical man has received an inheritance from the past. He is bound to transmit the legacy unimpaired, and even increased, if it is possible, from opportunities, gifts, &c. If this is true of single medical men, it is more true of them in an associated capacity. Hence, I infer that whenever a proper person brings a communication which he thinks is original and valuable, the medical body, or public, before which he makes the presentation, should have the courtesy to receive the offering in the spirit in which it is offered. Give it a respectful consideration, and be very careful how criticism is offered, lest the sensitive nature of the discoverer be injured. Suppose the communication should prove to be different from what the offerer thought; instead of ridicule, or rough putting aside, he should be praised for his intention, and requested to try again, and bring another offering. It often happens that inventions and discoveries are made contemporaneously in two or more places without knowledge of each other; but this should not invalidate the claims of either. The society should show a friendly spirit, speak a word of encouragement, use its *influence* to stimulate

the pioneer in his future labors. This is what I mean by *patronage*, and I think that this kind of patronage would do no harm, but much good. If such a spirit of patronage were cultivated generally in our sister societies, it would hasten the day of the discovery of typhoid fever germs, of smallpox, rheumatism, scarlatina, measles, and like diseases. In the establishment of the Army Medical Museum, and its publications, our government has shown a remarkable example of healthy, fruitful, natural patronage. May we see more such!

We wish also that medical societies would discuss the question, whether physicians of advancing age, wealthy, enjoying a large and long practical experience, should not relinquish their practice to some extent, for the purpose of giving their attention to original investigation (like the late Dr. Perkins, of Newburyport,) either as laborers, or patrons of laborers. They would be expected to choose such topics as by experience they were convinced needed investigation the most. Ripe in judgment, trained in observation, warped not by prejudice or self-interest, rich in resources of accumulated knowledge, looking into eternity, how gloriously could such a body of laborers terminate their earthly career, and to how great advantage to mankind!

The common spectacle of such physicians spending their wasting physical strength in the hard routine of practice, when it is not necessary for support, and simply for occupation, is, I think, a melancholy one, when there is such a noble field unoccupied, in which there is room for the largest exercise of their powers in a healthful, invigorating, and delightful manner. Let us who are young prepare our minds, that when our physical strength declines (allowing that we shall have the pecuniary ability), we may devote ourselves to such work, which will be our best monument after we have passed away.

The last field that I shall allude to, is that of labor in *public hygiene and medicine*. I hope the time will come when it will be a frequent occurrence to have questions brought by municipalities to medical societies, as I understand was done in Albany lately — the city referring the question of the purity of a water supply from a certain source to the Albany Medical Society, and abiding by its decision. This is one of the aptest things of the day. It was honorable all around. It was satisfactory. I have not the least doubt that medical societies could decide questions of sewerage, drainage, clean streets, clean household surroundings, slaughter-houses, and rendering establishments, if applied to by the proper authorities; and that cities and towns would be great gainers in health and longevity, if they would advise with, and act upon the suggestion of, the local medical societies. I think, also, that if architects would consult the same bodies in relation to the location of dwellings, public buildings, and manufacturing establishments, in relation to ventilation, heating apparatus, and arrangement of apartments in buildings, there would be a great improvement in the housing of men and animals, and a staying of death from impure air. Further, I believe that architectural perfection will not come until this mutual consultation is had.

I think, also, that medical societies might occasionally instruct the public as to articles of diet. For instance, suppose they examine the subject of the premature decay of teeth, in children, and find as I have done, that one cause of it is the deficiency of mineral matter in

flour (wheat). I had the "peerless flour" analyzed, and it was found that it contained only 0.55 per cent. of ash, when whole wheat grain yields 1.65 to 3.1 per cent.; that flour has only one third to one sixth the proper amount of mineral matter to make teeth with; that a dentist finding his first child's dentition late, irregular, and prematurely decaying, placed his wife during her second pregnancy upon the use of whole grain flour, and when proper, placed the child upon the same diet; that this change of diet was followed by a regular normal dentition with undecayed teeth; suppose, I say, that this experience should be confirmed by the observations of the society, till they were satisfied of its truth, and then the public should be warned of the exclusive use of flour by an official announcement of the society; would not a great blessing be conferred upon the rising generation, some of whom are toothless, and worse than toothless prematurely, simply from too much flour?

How long would it be before Dr. Toner's admirable idea of public free camping grounds and parks for the sick and poor would be carried out, if every medical society adopted it, and recommended it?

So of free public baths. Indeed there are no worthy sanitary measures which might not be adopted, were physicians generally united in their favor.

The State Board of Health in Massachusetts is eminently the work field of physicians. I hope that every medical society will sustain it to the utmost.

Let us come up to our work like men, leaving behind, as philanthropists, all jealousies, strifes, and want of harmony. Let us by coöperation, action, labor in the fields set before us. There shall we bring out our latent powers for good, and cause streams of blessings to flow upon our race, which shall not cease to flow till time ends. We will go down to our graves with the satisfaction that we have done what we could.

Woburn, Nov. 4, 1873.

STRANGULATED HERNIA SUCCESSFULLY TREATED BY PNEUMATIC ASPIRATOR.—An engine-driver, aged 50, had suffered for three months from inguino-scrotal hernia. He was first seen by Dr. Nairnes, on the night of 8th October, at 11.30, when the tumor in the scrotum was found to be tender on pressure, the patient suffering intense pain, and harassed with frequent vomiting, flatulence and general uneasiness. All efforts at reduction failed. The attempts to restore the intestine by means of taxis were renewed the following morning, the patient being put under the influence of chloroform, but the results were still negative. Dr. J. P. Bramwell, who had been called in consultation, now suggested the employment of the aspirator. A No. 2 needle (Dieulafoy's) was accordingly thrust at right angles to and well into the sac; on turning the tap, about two drachms of a serous fluid and bubbles of gaseous matter were drawn into the instrument—a sure proof that the bowel had been perforated. The aspirator was now emptied and again set, and the needle drawn somewhat outwards. This change of position evidently placed the point in the hernial sac, out of which was drawn from four to five ounces of sero-sanguineous fluid. The tumor suddenly collapsed, and, on manipulation, the hernial protrusion was found to have disappeared. The patient made a rapid recovery. In his remarks upon this case, Dr. Bramwell questions whether any surgeon is warranted, as a rule, in performing the old operation for hernia, before having tried the simpler and safer plan of aspiration.—*Edinburgh Medical Journal*, Dec., 1874.

Progress in Medicine.

REPORT ON SURGERY.

By J. COLLINS WARREN, M.D.

(Concluded from page 591.)

Ligature of Arteries in their Continuity (*Centralblatt für Chirurgie*, No. 32, 1874).—Ed. Lang, of Innsbruck, gives a *résumé* of eleven cases of ligature of arteries: Twice the common carotid, four times the lingual, once the subclavian, twice the external iliac, once the femoral in Scarpa's triangle, and once under the sartorius.

1. Gliosarcoma of the right tonsil. Osteo-plastic resection of the lower jaw, ligature of the right common carotid previous to extirpation of the tumor. Death at the end of ten days. Immediately after the ligature, bluish discoloration of right side of face and temple; also enlargement of the temporal artery. The operation was as bloodless as upon the dead body. Embolism of the arteria fossæ Sylvii brought on apoplectic symptoms and death.

2. Recurrent sarcoma of lymphatic glands on the right side of neck. Extirpation. Ligature of the common carotid during the operation. Recovery. The recurrence of the sarcoma, accompanied by hæmorrhage, rendered an operation necessary; during the operation, the bleeding was so excessive that it was necessary to tie the carotid.

3. Carcinoma of tongue. Extirpation after ligature of the right lingual artery. Recovery. Subsequent return of the disease, with usual result.

4. Carcinoma of the tongue and of the floor of the mouth, and of the lower jaw. Ligature of both lingual arteries. Extirpation. Œdema of the glottis. Tracheotomy. Death from septicæmia. In this case the larynx was so low down in the neck that the incision for tracheotomy had to be extended to the sternum and the thyroid cartilage drawn up by hooks and forceps.

5. Carcinoma of tongue and floor of mouth. Preliminary ligature of one lingual artery. Extirpation of the growth. Diphtheritis, pyæmia, death. A pyæmic inflammation of one sterno-clavicular joint existed.

6. Union, with deformity, after fracture of the neck of the humerus. Resection of the projecting end of the lower fragment. Hæmorrhage from a resulting abscess; ligature of the subclavian under the clavicle; recovery. Reflected light was used to illuminate the deep parts of the wound during the operation.

7. Compound fracture of the right thigh. Hæmorrhage from an abscess. Ligature of the right external iliac. Death from exhaustion, on the twenty-third day after ligature. At the autopsy, the ends of the arteries were thickened to double their size by growth of the middle coats; there was also amyloid degeneration of the liver, spleen and kidneys. At the seat of fracture, a hollow cylinder of new bone enclosed the fragments, which were still movable.

8. Severe injury to the left leg. Amputation through condyles of femur. Ligature of femoral in Scarpa's triangle, of the external iliac, and, finally, of the branches of the femoral in the triangle, for secondary hæmorrhage. Recovery.

9. Total necrosis of left femur. Removal of the sequestrum. Ligature of femoral under the sartorius for uncontrollable hæmorrhage. Recovery. Ligature difficult, on account of the inflamed and thickened tissue.

A Method of treating White Swelling of the Joints, more especially of the knee-joint, is given by Richard Barwell, F.R.C.S. (*British Medical Journal*, Oct. 17, 1874). The writer bases his treatment on the fact that, "after the first phase of the disease, strumous synovitis, the fungoid disease of the joint is not inflammatory, is not overaction, but underaction; and that some treatment to excite action, not rest, lotions, &c., which discourage action, is the right method of treatment."

The writer further says:—"As we stimulate indolent, flabby granulations of an old ulcer or of a wound by nitrate of silver or sulphate of copper into the production of a tissue, so it struck me I might also, by a direct application, stimulate sluggish tissue of a strumous synovitis into a more healthy condition; and for this purpose injection of minute quantities of a stimulating drug seemed to me the most direct method."

The fluid injected by the writer consists of half a drachm of the tincture of iodine to the ounce of water. The method of using the drug is thus described:—"A syringe with a very fine needle should be used, and care must be taken not to inject into the cavity of the joint, but into the thickness of the morbid tissue." Injection must not be employed when any active inflammatory process is going on; the temperature of the joint must not be at all higher, or but a portion of a degree higher, than that of the opposite side. No pain should exist, at the most only a dull aching, "which is rather a sign of fulness of the veins than of arterial hyperæmia." The puncture should be made in the softest and most prominent parts of the tumefaction, making from two to four punctures; into each of these punctures he injects about five minims of the fluid, withdrawing the needle a little as the piston descends, so that the fluid occupies a line rather than a spot of the tissue. After injection, he uses compression by means of an elastic bandage put on with such tightness as will escape producing congestion or œdema of the limb below. The effects are quite painless, save the puncture. In all cases, he says, decreased size, increased hardness of the tumor, with disappearance of the dull, aching pain has resulted, and the renewal of the use of the joint to an extent according to the amount of injury which the disease had already produced. As the tissues of the joint harden more and more under the use of injection, so may passive movement be used with considerable freedom. The author gives two cases successfully treated in this manner.

Subcutaneous Division of the Neck of the Thigh-bone.—Mr. William Adams continues to perform this operation, which he has now done for the fifth time. An account of his last operation is given in the *British Medical Journal*, July 11, 1874. The patient, a girl, aged 18, began to suffer from disease of the right hip-joint when she was eight years of age; for the last eight years, her right thigh had been permanently deformed, flexed and adducted, so that the knee rested over the centre of the left thigh. She formerly walked with two crutches, but had lately used only one. She had never worn a high-heeled boot

of any kind, and the toes of the right foot, when she stood up, were about six inches from the ground. Thus the leg was perfectly useless, and was atrophied. The patient having been placed under chloroform, a sharp-pointed scalpel was inserted from above the trochanter and passed across the front of the neck of the femur. A fine saw was then introduced at the same aperture, and the bone was divided in a little more than four minutes. Richardson's styptic colloid on cotton-wool, carbolic-oil dressing, and pads of lint were at once applied. The tendons of the tensor vaginæ femoris, adductor longus, and rectus femoris were then divided subcutaneously, and the whole limb was finally fixed to a long, straight, outside splint. The limb, which, before the operation, had been flexed at a right angle to the pelvis, was, after the operation, placed in a state of complete extension. This was the first case operated upon by Mr. Adams, in which the union was not bony, but the movement at the joint was so slight that no other mode of procuring relief seemed to offer much chance of success. The operation has now been often practised; Mr. Bryant has performed it twice at Guy's Hospital, and Mr. Maunder once at the London Hospital. These three cases and Mr. Adams's previous four cases have all healed without suppuration.

Dr. H. B. Sands, of New York, reports a case, operated on by this method, the patient being twenty-five years of age. In this case, there was, also, no bony union, "but a useful and satisfactory false joint resulted."

Incision versus Excision of the Knee in Children is the title of a paper by Edward Lund, F.R.C.S., read at the annual meeting of the British Medical Association. Mr. Lund argued that, in a large proportion of cases under twelve to fifteen years of age, the incision was the better operation. The mode of procedure was peculiar, inasmuch as he only opened the joint by an incision in its external side, and through this, by means of a curved cutting hooked knife, which was passed into the joint, or so much of the natural cavity as remained, all adhesions were broken down, or cut through, so as to permit the bones to be replaced in a straight line. It was rarely possible to do this immediately, on account of the contraction of the tendons; but several contrivances were shown, by which, by the use of elastic, India-rubber bands, long-continued, slight pressure produced excellent results, and firm, straight ankylosis of the knee was the result. It was, however, one essential condition of the operation which Mr. Lund recommended, that it should be conducted entirely upon Mr. Lister's system of antiseptic dressing, for without these precautions it might, in many cases, prove a hazardous proceeding.

Massage.—M. Fontaine gives a contribution to the subject of treatment of sprains by massage (*Archives Méd. Belges*, 3, 1874). The author became interested in this subject on hearing of great success attending the use of massage in all forms of injuries to the limbs by a certain female practitioner in the village of Thelin, Belgium. M. Fontaine has had great success himself with the massage. The limb is first covered with oil, and the part is rubbed with one or both thumbs, in gentle movements, from the extremities upwards, following, in general, the direction of the muscles and tendons. The affected, painful spot should be rubbed gently, while the healthy neighboring parts should be treated more energetically, and the muscles at times tho-

roughly kneaded. This manipulation should last from a quarter to half an hour, and should be repeated three times daily. In the interval, the limb should be raised and bandaged. According to the author, massage acts favorably, by spreading the extravasated blood over a large surface, and thus favoring absorption.

By the rupture of the vessels, the blood is extravasated between the ligaments, tendons, and the sheaths of tendons, and becomes the chief cause of pain and swelling, and crepitation frequently felt.

The author thinks that all forms of acute or chronic joint-inflammations are thus avoided.

Diseases of the Anus and Rectum.—Hayem's Review (Vol. ii. 1874) contains extracts from a paper on this subject, contributed by Esmarch to von Pitha and Billroth's Surgery:—

Prolapsus of the Rectum.—The author notices the complications of this affection, chiefly hernia, existing in a sac formed by the peritoneum, which the prolapsed rectum draws down with it. This hernia can become strangulated; in case it cannot be reduced by taxis, the sac may be laid open from the perineum, or, as has been done by Büniger in one case, to open the abdominal cavity on the median line, and draw up the sigmoid flexure, which had become strangulated; the patient recovered. In the way of treatment, the author recommends the actual cautery applied to the anus, a plug of cotton batting having been previously introduced into the rectum.

Growths in the Rectum and Anus.—The benign growths are polyps, which belong to the class of papillomas or adenomas. The latter are the most numerous.

Cancer is most frequently epithelial, of pavement form at the anus, and cylindrical in the rectum. The latter often becomes alveolar. The consistence of these growths varies from that of a scirrhus to colloid cancer. They are rarely pediculated, and generally infiltrate the surface and deeper parts, converting the rectum into a rigid tube, and invading neighboring organs. Sarcoma is very rare; melanotic sarcoma has been observed.

Although epithelioma ulcerates early, Esmarch thinks that cancer of the rectum can remain several years without causing serious complications.

For the purpose of diagnosis, he recommends exploration of the rectum by introducing the whole hand, as described by Simon. He is in favor of extirpation, and gives a number of successful cases. The author cites a case examined by Billroth four years after the extirpation of a circular cancer, by Schuh, in which there had been no return of the disease. If complete extirpation is not possible, he recommends scooping out the disease with a sharp edged spoon, to diminish pain and facilitate emptying the bowel. He is not in favor of making an artificial anus as palliative treatment.

Catheterization of the Larynx.—Dr. von Hüttenbrenner (*Jahrbuch für Kinderheilkunde*, Jahrg. viii., 1 Heft), in an article on catheterization of the larynx in croupous and diphtheritic affections, comes to the following conclusions:—

1. At each introduction of the catheter or of Weinlechner's tube into the windpipe, the child is liable to become asphyxiated. This occurs from difficulty in introducing the catheter without proper assistance, or from separation of membranes or fragments thereof, which cannot

be coughed up, and falls down into the trachea or on to the bifurcation of the bronchial tubes.

2. Catheterization performed repeatedly, at each return of dyspnoea, is found to be injurious, for, while it does not do away with tracheotomy, it taxes, in a high degree, the strength of the child.

3. It is almost impossible to avoid wounds of the mucous membrane in the buccal cavity during introduction of the gag, and, during catheterization, superficial abrasions are also likely to occur; these bleed readily, and, in a few hours, are covered with a croupous or diphtheritic membrane.

4. Catheterization of the larynx is of temporary benefit only, the effect lasting but a few hours, followed by a return of the previous symptoms.

5. The operation requires numerous and skilled assistants. It cannot, therefore, be readily employed in private practice.

6. Where rationally employed, the operation should be resorted to but once, and then only to gain time. With this exception, it should never be employed in croup, since, with all its dangers, it never takes the place of tracheotomy.

The remarks made by the writer in this article were not intended to refer to the indications for catheterization of the larynx in other diseases than those above mentioned.

Bone Absorption.—Dr. Alexander Morison, of Edinburgh, a former pupil of Kölliker, has continued his researches on bone absorption by giant-cells. These cells, as is now known, are to be found in the line of demarkation which separates the sequestrum from the live bone about it. The small, circular hollows, found on the surface of the sequestrum, which exactly fit the granulations on the living bone, were described, long ago, by John Hunter. It is the histology of this vascular layer, and of these "small, circular hollows," which has been the subject of investigation by Dr. Morison; and if we have not even yet been informed how absorption of bone is actually effected, we have, at least, been made acquainted with various steps in the process. Kölliker showed that absorption in the normal course of the development of bone produces small cavities, and that these are filled, without exception, with giant-cells, or myeloplakes—with one, a portion of one, or several. He believed that these giant-cells arise from osteoblasts (the cells from which bone-tissue is developed), and that they are the agents by which bone (and tooth) are normally absorbed. Morison's investigations go to support this description and opinion. He has seen intermediate forms between osteoblasts and giant-cells; but he is inclined to believe that the latter may also arise by the aggregation of the nuclei of embryonic connective tissue in the spaces in the edge of bone which is being absorbed. It is possible, also, that the giant-cells may grow by proliferation of the connective tissue in the wall of a capillary. Whatever their origin, the presence of these peculiar cells in the line of absorption of bone seems to be now fairly established, and the idea may be entertained that their function is a destructive one. When separation is complete, they would appear to be succeeded by constructive or formative cells, which arise from the embryonic connective tissue about them.

Tannin as a Surgical Application.—Mr. Philip Miall, in a communication to the *British Medical Journal* of Nov. 7th, extols tannin as an astringent in surgical dressings.

The strong solution of tannin is, he says, a most powerful astringent, almost free from irritating properties. It is one of the best dressings for wounds—far superior to collodion, and even less irritating than the styptic colloid, which it somewhat resembles. If applied by a brush, and allowed to dry, it soon forms a pellicle, which excludes the air, and gives ease to pain. To prepare it of full strength, an ounce of perfectly fresh tannin must be mixed with six drachms of water, in which it readily dissolves. The solution is a thick fluid, of the color and consistence of treacle, which keeps much better than tannin itself. He is in the habit of prescribing it as Martin's solution, having learned it from a paper by Mr. Martin in the *British Medical Journal* of March 20th, 1869. Mr. Martin recommended it as a method of converting living skin into leather.

Most of the tannic acid found in shops contains a large proportion of gallic acid, and will not yield a very strong solution. But, if an ounce of old tannic acid be mixed with two ounces of water, a tolerably strong solution, which answers for many purposes, may be decanted off after subsidence.

It may be applied to almost any form of ulcer, and to wounds after amputation or other operations, especially when not very deep. It answers well, for instance, after the operation for hare-lip, applied in the same way as collodion is sometimes used.

In a female, aged 26, the hair was caught between rollers and the whole scalp removed to within an inch of the left eyebrow and two inches from the right, round on a level with the tips of the ears to about the external occipital protuberance, the periosteum being extensively removed at the vertex. There was much suppuration, followed by erysipelas. After three months, exfoliation of bone occurred, and skin-grafting was performed, first with eleven grafts, and, six weeks subsequently, with twenty-one. After varied treatment, antiseptic and other, little progress was made, till, nine months after the accident, strong tannin-solution was applied. Discharge and fœtor diminished at once, and the healing process went on more quickly than before. Tenderness diminished, and the general health improved rapidly for the first time since the accident. The wound, eighteen months after the accident, was about half its original size, and the discharge trifling.

Strong tannin-solution, applied to the ulcerated skin of ingrowing toe-nail, at once removes pain. After one application, the offending corner of the nail may be readily raised, a little lint inserted underneath, and the nail allowed to grow up.

Chronic phlegmonous erysipelas in the legs may be painted with it with great advantage. He has not found it so useful in acute erysipelas or erythema.

The Treatment of Hydrocele in Infants.—M. Marjolin (*Lyon Médical*, No. 18, 1874) states that this affection is cured spontaneously in the majority of cases, and that there is danger in puncture, owing to the frequent communication of the cavity of the sac with the peritoneum. Hydrocele does not interfere in any way with the development of the testicle. If puncture and injection are necessary, the finger should be placed at the neck of the sac, to prevent the entrance of fluid into the peritoneum. M. Marjolin uses the tincture of iodine, but does not state of what strength.

Bibliographical Notices.

Transactions of the New Hampshire Medical Society. Eighty-fourth Anniversary, 1874.

It is agreeable to note the fact that the New Hampshire physicians believe in the promotion of good fellowship and fraternity by a semi-annual gathering, at which social exercises are substituted for the more solemn and elaborate scientific proceedings to which the annual meeting is devoted. In this judicious interchange of recreation and instruction, our neighbors set a good example, which we should like to see generally followed.

The Annual Address of the President of the Society, Dr. Swett, of Newport, was devoted to the consideration of a theme which, in these latter days, has proved both seductive and difficult—the duties of the profession in relation to alcoholic preparations. The subject is treated with evident sincerity, growing out of strong convictions. Occasionally in the discourse, the zeal of the philanthropist and the reformer is substituted for the calm and dignified impartiality of scientific investigation; but in general there is a gratifying absence of that intemperance in expression and ideas which too often characterizes the efforts of temperance advocates. The author places himself at a disadvantage by adopting, as infallible, the conclusions of Lallemand, Duroy and Perrin concerning the action of alcohol in the system, conclusions which have been repeatedly refuted by the observations of more recent physiologists. The views of the authorities above named have served a good turn for the cause of temperance, but it is time they were quoted with something more of reserve than has been customary.

Passing to the clinical and pathological part of his address, Dr. Swett gives abundant evidence against the abuse of alcohol, medicinally or as a beverage. The effects of alcohol on the digestion are portrayed with vigor. "Strong drink" gives no assistance to a man's healthy mental or physical powers, but rather curtails them and shortens life; it does not enable one better to withstand cold or heat; "metamorphic changes are retarded, and thus a large amount of carbonaceous element is retained in the blood, deteriorating that fluid . . . or else is deposited in abnormal proportion about the heart, liver or kidneys, producing what is called fatty degeneration."

The address closes with an exhortation to physicians to use their special opportunity in impressing on all with whom they come in contact the evils which alcoholic intemperance entails. "To physicians more than to others, does it belong to show that inebriety is a disease, hereditary as well as acquired, and that no legal enactments, whether license, restrictive or prohibitory, can be of much avail until the sentiments of the people become sustaining, and such enactments have for their basis pathological knowledge."

The Annual Oration, by Dr. Dinsmoor, dealt with quackery, especially that which is within the pale of the profession. Among the manifestations of this empiricism, the author mentioned a too reliant faith in the self-limitation of diseases and a consequent distrust of medicines; a habit of misrepresenting to patients the severity of their diseases; the production of abortion; the prescription of alcohol in wasting diseases; the abuse of consultations; and the consulting with irregular practitioners. Dr. Dinsmoor proposes a radical measure for the treatment of the quackery which is not confined to the regular profession; he would "advocate the enactment of a law making it a *felony* to practise medicine or surgery without a license from competent authority."

Dr. Frost, of Hanover, presented an Essay on Tuberculosis, giving a concise review of the prevailing opinions concerning the pathology of the disease. His own opinions inclined him to adopt the hypothesis of Niemeyer, that tuberculosis is usually of inflammatory origin.

In an elaborate and very instructive paper on Climatology, Dr. Ham, of Dover, discussed the changes which have been observed in our climate in a

long series of years, and the effects of those variations on disease. He concludes that our climate has not undergone a change in temperature, nor as regards rainfall, but that as the direct result of man's agency in felling the forests, in agriculture, in the building of canals and railroads, and in the introduction of a general system of drainage, the atmosphere has become more dry. As a consequence, in part, of this lessened humidity and so of the diminished amount of ozone in the air, we have a progressively lessened mortality-rate from phthisis and other respiratory diseases.

The Treatment of Marasmus, Whooping Cough and Debility in Children by Electricity. Re-printed from the Detroit Review of Medicine and Pharmacy, October, 1874. *The Longevity of Brain-Workers. Cases of Hysteria, Neurasthenia, Spinal Irritation and Allied Affections.* Re-printed from the Chicago Journal of Nervous and Mental Diseases. By GEORGE M. BEARD, M.D., New York.

DR. BEARD's experiments, made upon babies and the young, whether suffering from diseases of various kinds or from debility alone, have led him to the conclusion that infants are even less susceptible to electricity, whether general faradization or central galvanization, than adults, while at the same time "all the sedative and tonic effects of its application—improvement in sleep, in appetite, in digestion, and in muscular growth and increase of capacity for work—are realized by children as markedly as by adults, and with fewer apparent exceptions and fewer injurious results.

Furthermore, central galvanization, applied for five or ten minutes three times a day, was found of specific benefit in nineteen cases of whooping cough.

The results are of great interest; but, as we know so little, definitely, as to the part played by the central nervous system in controlling the nutrition of the other parts of the body—in the production of whooping cough, for example—we must be circumspect in drawing conclusions from them.

That active brain-work predisposes to disease and a short life, is satisfactorily shown to be untrue.

The conditions necessary to health are too complicated to be satisfactorily dealt with in a few rules of thumb about exercise and good hours.

Such is the power of adaptability of the human organism that, in spite of luxury and mental toil, which are supposed to pull and push their owner towards an early grave, good, if not perfect, health still remains within the grasp of a cultivated intelligence, and the power of purchasing means of protection, comfort and cure.

For the cases of hysteria, &c., which do not admit of a short notice, we refer to the original. They contain nothing of unusual interest.

BOOKS AND PAMPHLETS RECEIVED.

The Diseases of the Stomach. Being the third edition of the "Diagnosis and Treatment of the Varieties of Dyspepsia." Revised and enlarged. By Wilson Fox, M.D. Philadelphia: Henry C. Lea. 1875. Pp. 283. (From James Campbell.)

The Early History of Practical Anatomy. Introductory Address. By Wm. W. Keen, M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 43. (From James Campbell.)

Orthopædia. A Treatise on the Human Form. By James Knight, M.D. New York: G. P. Putnam's Sons. 1874. Pp. 364.

The Longevity of Brain Workers. By George M. Beard, M.D., of New York. Pp. 16.

The Legitimate Influence of Epilepsy upon Criminal Responsibility. By Meredith Clymer, M.D. (From the Proceedings of the Medico-Legal Society of New York.) New York. 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 24, 1874.

THE letter, which we publish to-day, from Dr. Cutter to the Middlesex East District Medical Society, though open in some points to criticism, is worthy of careful consideration. We welcome suggestions of this nature, even when we do not quite endorse them, as they often give rise to profitable discussion. We agree cordially with Dr. Cutter as to the reforms and improvements he suggests, though we are inclined to question the advantage of the plans by which he suggests that some of them should be brought about. We must mention, by the way, that some of the shortcomings he alludes to have not been overlooked; the State Board of Health has taken up the matter of reports of prevalent diseases, and we were the first, after the notorious Alley trial, to urge a reform in expert testimony. Efforts have been made to obtain legislation on the subject, but so far without success. It is not necessary to look to Albany for an example of a city asking advice on the water question from competent medical men; this has been done in Boston. But it remains to be seen if the advice will be followed.

It is certainly desirable that all possible light should be thrown on subjects discussed at medical meetings, but we are not sure that the plan proposed would work well in practice. Few men are versed on all subjects, yet according to this plan every one, no matter how ignorant, must speak. We shudder at the agony with which those really acquainted with the subject under discussion must listen to the talk of those that know nothing. It can hardly be flattering to one who, for instance, has passed his life in the study of obstetrics, to have the opinion of a recent graduate, who may never have seen a case, put on an equality with his own, particularly as this plan forbids the discussion by which the strength or weakness of any view would be made evident.

We do not quite understand Dr. Cutter's position concerning the treatment of original investigations. The object is to advance science, and this can only be done by good work. Bad work retards it. Undoubtedly it is better to have tried and failed than not have tried at all, and the writer certainly should be treated with courtesy; but this does not mean that his errors or crudities should pass uncensured. Nothing is so essential to progress as severe criticism of alleged discoveries: if they are good, their merits will be made more prominent; if bad, the sooner they are put out of the way the better.

WE are sorry to learn that Mr. Albert T. Whitney has resigned his position as a member of the city Board of Health. He was re-appointed last May for three years. He was remarkable for his energy and determination in the discharge of his duty. We understand that the cause of his resignation is the necessity of returning to business, his salary being insufficient. It is greatly to be regretted that the city cannot see the advantage of paying enough to secure the best men to serve in such positions. Nothing is saved by this parsimony in such matters. Mr. Whitney's resignation goes into effect on January 1st. The Hon. Henry G. Crowell is appointed his successor.

The Hospitals.

BOSTON CITY HOSPITAL.

Service of Drs. Cheever, Thorndike and Fildes.

THE operations performed on Tuesday and Friday, Dec. 15th, and 18th, 1874, were as follows:—

1. Ovariectomy.
2. Paracentesis Abdominis.
3. Cyst of the Neck.
4. Vascular Excrescence of Urethra.
5. Anchylosis of the Elbow.
6. Re-adjustment of Flaps.
7. Necrosis of Frontal Bone.

4. Six years ago, this patient, a middle-aged woman, had a similar growth removed from the meatus and the surface cauterized with nitric acid. The relief was perfect for two years, when her former symptoms began to return and have gradually increased. During the past two months, the desire to empty the bladder has been almost constant and the micturition attended with much scalding. The mucous membrane of the lower two thirds of the meatus presents a bright red, vascular appearance; it is hypertrophied and slightly lobulated, and projects from between the lips of the meatus like a strawberry. The diseased surface was lightly touched with the galvano-cautery and a cold-water dressing applied. Dr. Cheever spoke of a similar case, seen by him a few years ago, in which a woman had been treated four months for supposed "disease of the womb."

These growths are made up of bloodvessels, connective tissue and thickened mucous membrane. However treated, they are very apt to return, and, though not malignant, are yet very troublesome.

The galvano-cautery, or the actual cautery, applied freely till all the diseased structure is destroyed, promises the best results of any of the proposed methods of treatment.

5. The patient is a young woman who had acute rheumatism last winter. Several joints were affected, but all recovered perfectly, except the left elbow, which is ankylosed in a nearly straight position. The adhesions were broken up last April, but have re-formed. There is a very slight motion in the joint, and the arm is free from swelling and inflammation. The patient having been etherized, the adhesions were thoroughly broken up, so that the forearm could be flexed to its normal extent.

Dr. Cheever proposes to give passive motion a fair trial, and, should ankylosis be found inevitable, to fix the forearm at a right angle, so the hand can be carried to the head.

6. Amputation of the arm was performed upon this young man several weeks ago for a railroad injury to the elbow-joint. The flaps had contracted

irregularly, so that a cutaneous and granulating surface were apposed. The flaps were dissected up, trimmed and carefully united with wire sutures.

GEO. W. GAY, M.D.

Correspondence.

AMERICAN MEDICAL ASSOCIATION.

DECEMBER 19, 1874.

MESSRS. EDITORS,—I am willing to let my letter speak for itself so far as the American Medical Association is concerned, and I should not have a word more to say upon any topic connected with the views I have already given in my letter, if in your editorial upon it you had not expressed an opinion on two points, to which I ask the privilege of replying.

1st. The apology, or whatever it may be called, made by the American Medical Association, in 1872, for the unfortunate (to use the mildest term) proceedings in Washington in 1870, was submitted to many, if not all, of the Massachusetts delegates present at Philadelphia. A sincere desire was manifested by men high in influence with the American Medical Association to heal the breach between the two societies. In its terms it was wholly satisfactory to those of us who read it, and who could have amended it before it was laid before the meeting. We really supposed, perhaps unwisely, that it was sufficient, and so told the gentleman who proposed to offer it for the consideration of the Association. The blame, therefore, is again to be laid justly on Massachusetts men, who were, unwittingly, not sufficiently jealous, perhaps, of Massachusetts honor. But no blame can be laid on the American Medical Association or its officers for shortcomings in this respect.

2d. You intimate that my simple suggestion that the power of the Councillors is only *advisory* (that is, on the matter at present under discussion) tends to create dissensions between the Councillors and the District Societies. Certainly nothing could be farther from my thought than such an intention. I simply stated a legal fact, and if I am wrong I am willing to be corrected. I stated, and I repeat the statement, that in the election of delegates to the American Medical Association the action of the Councillors is simply "*advisory*," and that the "*power to choose*" rests with the District Societies. Will you kindly correct me if I am in error, for I cannot, at present, see any flaw in that proposition? I know that the contrary opinion exists, somewhat widely diffused in the State. Your Editorial will help to confirm that opinion. I verily believe that it is radically wrong, and fraught with real dangers to the well-being of the Massachusetts Medical Society and of its District Societies.

For these reasons, I am obliged to trouble you again upon this subject, which certainly must be a much less interesting one to the majority of your readers than a discussion of some more strictly professional topic.

I remain very truly yours, HENRY I. BOWDITCH.

[As we have expressed ourselves ready to overlook the insult, it is hardly worth while to discuss the apology. We could say, however, that we learn from good authority that some of the leaders of the Association refused, in private conversation, to support any resolutions involving an acknowledgment of wrong.]

There is no question whatever that *the power of the Councillors is simply advisory*, except in certain cases provided for in the By-Laws. We had no intention of giving any other impression. Dr. Bowditch's remark implied that the advice of the Council, if opposed to sending delegates, should not be taken; and we thought it right to protest against an appeal from a body, appointed to advise and capable of advising, to a larger body that has not the first and may not have the second of these attributes.—EDITORS.]

Medical Miscellany.

CORRECTION.—JAMES H. McDONELL, not McDonald, was appointed Assistant Surgeon of the Ninth Regiment, M. V. M.

ATROPIA is highly extolled by Dr. T. Lander Brunton as an antidote to poisonous mushrooms.

A **HYGIENIC INSTITUTE** is to be erected at Munich, to be placed under the directorship of Prof. v. Pettenkofer.

Zeno, the fatalist, whipped a slave for theft. "It is fated for me to steal," said the thief. "And to be whipped," rejoined the philosopher.

TRICHINIASIS.—In Linden, a suburb of Hanover, an extensive epidemic of trichiniasis has recently broken out, about 400 individuals having been attacked at last accounts. Of 70 cases treated at the hospital, 21 had terminated fatally. The malady was in each instance traceable to infected pork.

THE RIGHT DOCTRINE.—"One state of the mind is essential to all crime, namely, the intention to commit it. . . . If a criminal be compelled by necessity to commit crime, so also is society compelled, by the necessity of suppressing crime, to have him punished."—DR. BUCKNILL, *Lecture*, Nov. 20, 1874.

A **FIBROMYOMA OF THE FUNDUS UTERI** was recently removed by Lawson Tait by the abdominal section. The tumor had been in existence for five years, growing rapidly in the preceding months, causing great distress by its pressure on the pelvic organs. The tumor, after removal, weighed eight pounds.—*British Medical Journal*.

ASPHYXIA IN CROUP.—It is a well-known fact that children not infrequently die of croup with symptoms of dyspnoea, in whom no false membrane can be detected at the *post-mortem* examination, nor any other change which would account for the phenomena of asphyxia. Niemeyer attributes the cause of death in these cases to paralysis of the infiltrated and relaxed muscles of the larynx. If false membranes are present, both in- and expiration are obstructed; if, however, there is paralysis of the laryngeal muscles, and especially of the crico-arytenoideus posticus, inspiration alone is interfered with.—*Niemeyer's Lehrbuch*.

ADULTERATION OF SUBNITRATE OF BISMUTH.—At the Cook County Hospital, an extensive burn of the leg was treated by dusting subnitrate of bismuth over the open surface of the wound and then covering it with dry lint. In a few days, symptoms of metallic poisoning exhibited themselves; the patient complaining of increased pain at the seat of injury and a metallic taste in the mouth. A blue line soon appeared upon the gums, and numerous small ulcers were formed upon the mucous membrane of the cheeks. Upon testing the bismuth, this substance was found to contain large quantities of lead, which was undoubtedly the cause of the metallic poisoning.—*Chicago Medical Journal*, December, 1874.

RECTO-VAGINAL FISTULA CAUSED BY A PESSARY.—At a recent meeting of the Obstetrical Society of London, Mr. Churton related the particulars of a case where a patient, aged 60, had worn a pessary for two years, by means of which a recto-vaginal fistula had been produced, large enough to admit two fingers. In the discussion which followed, Dr. Routh observed that he had seen an instance where a globular pessary was retained for five years and then removed with forceps. He had also known of two cases in which Hodge's pessaries produced fistulae.

Dr. Wiltshire mentioned a case in which a Zwanck's pessary caused fistulous openings into both the bladder and the rectum. He regarded gouty women as very intolerant of pessaries, incrustations rapidly ensuing on them.—*British Medical Journal*.

DOCTORS (OF LAW) DISAGREE.—It was not, as generally supposed, of doctors of medicine that Pope wrote:—

“Who shall decide when doctors disagree,
And soundest casuists doubt, like you and me?”

Nor would he now, when the law, which should be fixed and certain above all things, is so unstable in the decisions of its greatest expounders. A distinguished lawyer, says the *Medical Times*, recently stated of the judges lately examined on the law of homicide, by a committee of Parliament, that “they flatly contradict each other.”

LIME GLYCERINE FOR BURNS.—The following preparation has been used by Lamb for several years with great success:—

R. Oxidi calc., gram. iij.;
Glycerinae, “ cl.;
Spts. æther. chlor., gram. iij. M.

Charpie is to be dipped in the mixture and placed over the burned surface; it is then covered with a sheet of gutta percha, and then a layer of charpie is added, the whole being then enveloped in a loose bandage. The pain ceases almost instantly and the sore heals very rapidly.—*New York Medical Journal*.

MALIGNANT PUSTULE PRODUCED BY A FLY-BITE.—The patient, a coachman, was conscious of being bitten by a fly on the 28th of March last. The puncture was inflicted in the temporal region, and a minute mark was left by it, not unlike a flea-bite, at which point some itching was experienced upon the following day. Upon the evening of the 29th, a swelling appeared in the temporal region, which extended over the entire face, becoming so intense that, upon the evening of the 30th, the eyelids could no longer be parted. April 1st, he was received into the hospital, upon which occasion the characteristic black eschar was noticed, surrounded by a coronet of vesicles. In spite of the most heroic treatment (incisions and cauterization), no decided relief was obtained, the swelling and gangrene slowly extending until the left eyelids, the soft tissues of the nose, the lips and the left ear all sloughed and became detached, imparting to the face the appearance of a hideous mask. Death finally ensued May 10th. No trace of bacteria could be detected either in the blood, nor the serum of the vesicles, and the inoculation of rabbits with the blood was followed by negative results.—*Lyon Medical*, September 13, 1874.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities and Towns for the week ending December 12, 1874.

Boston, 133; Worcester, 15; Lowell, 26; Milford, 2; Chelsea, 6; Cambridge, 20; Lawrence, 15; Springfield, 6; Gloucester, 2; Fitchburg, 2; Taunton, 3; Newburyport, 2; Somerville, 12; Fall River, 20; Haverhill, 3; Holyoke, 1. Total, 263.

Prevalent Diseases.—Consumption, 55; pneumonia, 30; scarlet fever, 11. No deaths reported from diphtheria.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 19, 170. Males, 90; females, 80. Accident, 2; apoplexy, 5; asthma, 1; anæmia, 1; inflammation of the bowels, 2; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 2; cerebro-spinal meningitis, 1; cancer, 5; consumption, 27; convulsions, 2; croup, 8; debility, 4; diarrhœa, 2; dropsy, 1; dropsy of the brain, 5; diphtheria, 4; erysipelas, 1; scarlet fever, 7; typhoid fever, 3; gastritis, 2; disease of the heart, 7; hæmorrhage, 1; homicide, 1; intemperance, 2; disease of the kidneys, 4; laryngitis, 2; congestion of the lungs, 3; inflammation of the lungs, 18; marasmus, 11; measles, 1; old age, 9; paralysis, 4; premature birth, 2; pyæmia, 1; rheumatism, 1; scalded, 1; suicide, 1; syphilis, 2; scrofula, 1; disease of the spine, 1; tetanus, 1; tonsillitis, 1; tumor, 1; whooping cough, 3; unknown, 1.

Under 5 years of age, 73; between 5 and 20 years, 14; between 20 and 40 years, 33; between 40 and 60 years, 17; over 60 years, 33. Born in the United States, 115; Ireland 39; other places, 16.

OVARIAN CASES.

By DAVID W. CHEEVER, M.D., of Boston.

CASE VIII.—*Fibro-cystic Tumor of Uterus*.—Mrs. —, 37 years old, has borne two children. Since their birth, she had a miscarriage, six years ago. She has been, and still is, regular as to her catamenia. Three years ago, she was accidentally kicked in the left groin. Soon afterwards, she noticed a tumor in the abdomen, which has steadily increased. Bowels, formerly constipated, are now regular. No urinary trouble. She now has some shortness of breath; pain in the side; a feeling of weight and a tired ache. No bearing down in the pelvis. Feet have lately begun to swell a little. Appetite and digestion are moderate. She is still able to go about.

A large fluctuating tumor fills the abdomen. It is dull in front and resonant on the flanks. There is a lobulated prominence over the left inguinal portion of the cyst. The os uteri is high up, not freely movable. The uterus is drawn to the left; the depth of the uterine cavity is four and three-fourths inches.

She is urgent for an operation.

The diagnosis is a multilocular ovarian cyst, partially solid perhaps, and drawing up and pushing over the uterus.

March 19th.—*Operation*. An open fire; a room with a temperature of 75°; a table and tub carefully fitted to the tube of the trocar; the rubber sheet of Mr. Wells fastened to the abdomen; and ether given in Underwood's inhaler—these comprised the more essential preparations. Drs. Sinclair, Campbell and G. H. Gay assisted me.

The sac was exposed and punctured, and a considerable quantity of fluid drawn off. As it ceased to flow, and a large tumor could still be felt, the trocar was thrust in deeper, but struck a solid mass, and brought only blood. Examination now revealed a large solid tumor, behind the cyst, and forming its posterior wall. It was free from adhesions and movable. The incision was enlarged, and the whole tumor delivered from the abdomen. It now proved to have a central root, and to be a uterine tumor, fibro-cystic. The solid portion was large, dense and heavy. The large, long-bladed screw clamps of Mr. Wells were made to embrace the pedicle, and the tumor was cut away. It was seen that the section was through the uterus, as its cavity was cut across, and a probe passed into the centre of the pedicle emerged in the vagina. Meanwhile, the cavity of the abdomen was occupied with a large warm sponge, and the sides of the abdomen were pinched together. Warm flannels were applied to the epigastrium, and the feet and legs of the patient, rolled in a blanket, lay in the sun by a closed window. The pulse continued firm and slow, and the patient was wholly unconscious. She retched and vomited once, when the solid tumor was delivered. The cut surface of the uterine pedicle was

full of veins, patent and large. It was found impossible to secure all these by pressure. Large hemp cord was carried through and through the pedicle, by transfixion with a long needle, and the mass was tied in four segments. A number of single silk sutures were applied to individual vessels, and the whole mass was cauterized with the hot iron and afterward covered with solid perchloride of iron and charpie. All bleeding having ceased, the uterine pedicle was secured from slipping back by being transfixed by a long steel needle, which lay across the pubes. The ligatures were all brought outside. The sponge was removed. The incision was closed by silk sutures and plaster; cotton batting and a binder were applied, and the patient lifted into bed, which was adjacent. Her condition was excellent. Full pulse and no vomiting.

The pedicle being so easily secured on the outside, together with the fact that the patient exhibited so much vigor, were circumstances inspiring hope, although the extreme gravity of the operation was realized. Two hours were consumed in all the steps of the operation. It was completed on Monday, at one o'clock.

Monday evening, the patient had rallied well. There was no vomiting. She passed urine frequently, and without effort.

Tuesday.—Hæmorrhage from the pedicle, slow, oozing, persistent, continuous. Temporarily checked by styptics and pressure. Otherwise doing well. Controls bladder; has no vomiting; not much pain; some opium was given. Liquid nourishment.

Wednesday.—Bleeding continues; dark, thin, oozing; constant efforts were made to check it. Patient not so strong. Abdomen more distended, but not tender. Cotton batting lightened and bandage loosened. No vomiting; more thirst. Patient is allowed cold water and ice; broth; milk gruel; champagne. She passes her urine easily; sleeps well in the day. I was called at 2, A.M., and found her in a partial syncope, gasping for breath and alarmed. Increased stimulants and opium. Hæmorrhage continues.

Thursday.—Discharge from pedicle is more offensive, but the bleeding is less. Irritation about the bladder; pain in abdomen. Distension of colon. Aspect haggard. Pulse rapid. No vomiting. Syringed out the vagina, emptied the bowels by warm enema, drew the urine. Removed all the dressings from the pedicle; no bleeding. Removed a stitch in the wound above the pedicle; this opening gave exit to a considerable foul fluid, and gas from the peritoneal cavity. An elastic catheter was introduced, and everything cleansed with dilute liquor sodæ chlorinatæ. There is still greater distension of abdomen.

Friday.—Perfectly easy and conscious; no discharge; no hæmorrhage; no vomiting or pain; countenance pinched; hands livid; no pulse at wrist. She died quietly at noon, four days (or ninety-five hours) after the completion of the operation.

I cannot but think that this patient would have survived the operation of ovariectomy.

CASE IX.—Cancer of the Ovary.—In October, 1873, I for the first time examined Miss —, about 18 years old. She had enjoyed good health up to two years ago, when she began to flag. About six months ago, it was noticed that the abdomen was enlarging. She is now as large as a woman at the ninth month of pregnancy. A semi-

fluctuating tumor occupies the space from the pubes to above the umbilicus. It does not transmit a perfectly distinct wave to the hand. It is oval and uniform in shape; dull on percussion; but the flanks are resonant. The uterus is virgin, movable and the depth a little less than two and a half inches. The cavity of the pelvis is not much encroached on. Nothing is felt by the rectum.

The patient is quite reduced and has a good deal of dyspnoea and some œdema of the legs. Pulse 120.

It was not until reduced to this condition that she would hear of an exploration or operation. The diagnosis did not appear to me perfectly clear, though I leaned to the belief of multilocular ovarian cysts, with jelly-like contents.

The usual preparations were made for the operation, and the precautions previously detailed were adopted. Doctors Nichols and Driver, of Cambridge, and Underwood, of Boston, assisted me.

An incision of four inches revealed the tumor, which was found considerably adherent. It was not of the white color of an ovarian cyst, but darker and reddish. Over its surface ran enormous and tortuous bloodvessels. The trocar was plunged in, without result; it was then pushed deeper in various directions, but no fluid came. On withdrawing the instrument, a thick, sago-like material oozed out, with hæmorrhage. The finger, passed into the trocar wound, could penetrate deeply through a soft, bleeding, homogeneous pulp, which was withdrawn in masses. It had all the appearance of soft cancer, which the microscope afterwards confirmed. The nature of the tumor, the size of the vessels, the adhesions and the constant hæmorrhage forbade our going farther. The bleeding was checked with perchloride of iron and sponges, and the wound left open, but gently bandaged. The bleeding persisted, though not excessively. The patient was kept warm and stimulated. She sank, and died the following day.

CASE X.—*Ovarian Cyst*.—Miss —, always delicate and a dyspeptic, began to fail in health and increase in size, last autumn (1873). Of late, she has grown large more rapidly, and now the abdomen has the size of the eighth month of pregnancy. The shape is oval; the front is dull, the flanks resonant on percussion. The umbilicus is not everted. There is an indistinct fluctuation. The pelvis is empty. The uterus is small, movable and normal. A fine trocar being inserted through the abdomen, a ropy, chocolate-colored fluid was drawn out; but it contained nothing remarkable under the microscope.

The patient is much reduced; she can only move about a room, gently. She is somewhat anæmic; pulse feeble. Her digestion is wretched, so that she has lately subsisted on pills of raw beef. Unfortunately, an operation has only been consented to now, when she has reached this feeble state.

An operation was finally decided on, after consultation, as a last resort, though we had grave fears that she might not be able to rally.

Operation, January 31st, 1874, with the assistance of Drs. Minot, Underwood and Chadwick. The incision revealed a partially collapsed and ruptured cyst, with ovarian fluid in the peritoneal cavity. Not many adhesions. As the trocar plunged into the tumor gave no result, the sac was seized with hooked forceps, drawn forward and laid open. With the hand inside the sac, it was now delivered from the abdominal cavity. The pedicle was distinct and long. A clamp was

applied and the cyst cut away. Large warm sponges were used to carefully cleanse the abdominal cavity. The wound was closed with four deep silk sutures, the clamp being secured at the lower end of the incision.

In less than an hour from the first steps of the operation, the patient was established in bed and warmth applied. She bore the operation better than was feared. At 4, P.M., she vomited, and then had fair reaction. She took beef-pills, brandy and opium; the urine was drawn.

Feb. 1st.—She was pretty comfortable, but lacked nourishment. In the evening she became very hot, dry and restless, with pains in the abdomen and a little tenderness. One stitch was taken out, and a little odorless serum oozed out. Gentle pressure brought nothing more, and Douglass's fossa was found empty, per vaginam. She had vomited a green fluid in the afternoon. One fourth of a grain of morphia was now given subcutaneously.

Feb. 2d.—Reported an easy night. Nothing was put into the stomach, but an enema of beef-tea, and a little brandy was ordered every three hours. One pint of water, at 98° Fahr., was allowed to flow into the abdomen through a fountain syringe, by the opening where the stitch was removed. It ran out a little discolored, but not offensive. A temporary pain was produced, which passed off, and she expressed herself as feeling better. One fourth of a grain of morphia subcutaneously, and the enemata.

Evening.—Some fever. Abdomen less tender; has passed urine. Has had a quiet day, but is afraid to take anything into the stomach.

Feb. 3d.—The abdomen is slack and less tender. One more stitch taken out. Douglass's fossa empty. Fever is less. Urine passed. "Can't think of nourishment." Continue enemata, and morphia under the skin, when required.

Feb. 4th.—A fair night. Abdomen lax. One more stitch removed. Takes by the mouth, and retains, beef-tea, gruel and wine. Complains of a tenderness of left parotid gland; there is a slight swelling there.

Evening.—High temperature; skin dry; abdomen as at last report. Large swelling of left parotid, with pain and throbbing. Ordered hop poultice; morphia as before, and nourishment.

Feb. 5th.—A bad night. The parotid larger. Abdomen quiet. Douglass's fossa empty. The vagina contains a foul, semi-purulent secretion. The peritoneal cavity gently washed out through the wound, as before; no result followed. In the afternoon she vomited; and in the evening she died, five days and twelve hours after the operation.

Great previous exhaustion and dyspepsia, shock, non-assimilation, septicæmia were the sequences which led to a fatal result.

CASE XI.—*Papillomatous Degeneration of the Ovary*.—The patient, 29 years old and married, when first seen by Dr. Marcy, of Cambridge, in November, 1873, had an oval, symmetrical tumor, nearly in the median line of the abdomen, and reaching above the umbilicus. She supposed herself pregnant.

Dec. 11th, while dancing, she complained of severe pain in the abdomen, and fell to the floor insensible. Since this time, she has been quite ill; her abdomen rapidly enlarged, and (Dec. 14th) measured thirty-seven and a half inches at umbilicus, and fluctuated. The fluctuation changed with position. Uterus normal in depth; movable, but bent over to the left side.

Dec. 22d.—As she was suffering extremely, we decided to tap her. I removed fourteen pints of yellowish-green, clear fluid. Specific gravity, 1020°. Coagulated solid with nitric acid; some blood disks and pus cells seen with microscope. An irregular, firm mass remained in the left inguinal region. Diagnosis doubtful; I leaned to the belief of a subacute peritonitis, with a deposit of lymph.

The uterus now soon became unmovable, and the contents of the pelvic cavity fixed and inelastic. A gradual enlargement of the abdomen took place in January and February, a tumor pushing up from the left groin to the umbilicus and left lumbar region. The left side was much distended and fluctuating. An exploring trocar showed the contents to be a thin, purulent fluid, full of pus-corpuscles. A fluctuating point developed in Douglass's fossa, and was punctured by Dr. Marcy. Three ounces of a clear albuminous fluid escaped. This opening was enlarged, and admitted a sound two inches.

The tumor increased, and, on March 4th, Dr. Marcy, with the assistance of Dr. Hildreth, carried up a long curved trocar through the opening in Douglass's fossa, obliquely towards the median line, four inches; entered a sac, and drew off forty ounces of pus. A firm mass remained. This vaginal puncture was kept open, and, soon after this, red, villous masses escaped from it, which Dr. Fitz pronounced to be papilloma.

"The diagnosis was at last undoubted. Primarily an ovarian cyst, which ruptured, allowing the escape of its fluid contents into the abdominal cavity; subacute peritonitis followed, and now, a multilocular cyst, more or less filled with hypertrophic villous masses, closely bound by adhesions to the pelvic cavity.

"During March and April, the patient improved very much in her general health, although the tumor was slowly enlarging.

"Mrs. M. determined upon the attempt of removal, after full explanation of her unfavorable condition and the great gravity of surgical interference.

"May 7th.—The operation was performed by Dr. Cheever, assisted by Drs. Underwood, Hildreth and Marcy. The cyst was firmly adherent anteriorly, and, attempting its separation, the thick, friable walls ruptured, allowing the escape of a portion of its fluid contents into the abdominal cavity. Extensive adhesions to the omentum, intestines and parietal walls were carefully separated, and required several ligatures. It was necessary to carry the incision two inches above the umbilicus. The pedicle was broad and thick, was clamped, but too short to be brought out externally, and was secured by a double ligature and left in the pelvic cavity. A large-sized Sims's drainage tube was carried through the vaginal opening and lower angle of the wound.

"The cyst contained about a quart of purulent fluid and several large papillomatous growths, which were easily broken down and proved a source of very troublesome hæmorrhage. The right ovary contained a cyst of the size of an English walnut, which was easily enucleated.

"Owing to the great loss of blood and the tedious dissection of the adhesions, the patient's condition was one to cause anxiety, and the latter stages of the operation were hastened as much as possible. The patient rallied slowly and imperfectly from her almost moribund condition.

"There was slight nausea, no vomiting, no bleeding, no pain. Took

beef-tea and brandy, in small doses, frequently. Enema of the same every two hours. Evening temperature, 99°. Pulse 112. Extremities warm. Urine freely secreted. Mind clear. Slept some.

"May 8th.—Had a comfortable night. A watery fluid, mixed with blood, flows from the tube. The abdominal cavity is washed every six hours, with a weak solution of carbolic acid, until it flows clear.

"Noon.—Temperature 100°, and pulse 120. Tube obstructed, and the contents, which were washed out, were foetid. The microscope shows monads, bacteria, &c., in abundance.

"May 9th, A.M.—Slept part of night. No nausea; no pain; abdomen not tympanitic. Temperature 102°; pulse 140, weak. Extremities cold. Rapidly sinking."*

At Dr. Marcy's suggestion, transfusion of blood was tried, once by myself, and again by Dr. Marcy, some hours later. No apparent effect was produced; and she sank and died, about forty-eight hours after the operation.

CHLORAL HYDRATE AND MORPHINE.

By E. CHENERY, M.D., of Boston.

THE employment of chloral or chloroform in conjunction with an opiate in the treatment of painful affections, enables us to reach a degree of relief from suffering, accompanied by sleep, not heretofore attained. For, though opiates may be usually relied on to relieve pain, they "prop the eyes open," as it is said, in about one half of the cases, while chloral alone is not to be depended on as an anodyne, especially when the agony is great.

Some years ago, the writer had the case of a man who was a martyr to frequently recurring attacks of what was called "bilious colic." They had followed him a long time and were supposed to spring from habitual costiveness. Indeed, so extreme was this costiveness that he never seemed able to get along without physic, of which he required large doses—a teacupful of castor oil or a quarter of a pound of Epsom salts sometimes being necessary. He was eventually cured, however, by doses of one-half drop of croton oil repeated each night for a few times. It was found, by experience, that from a half to a whole teaspoonful of chloroform, with a full dose of laudanum, gave the quickest and best relief of the colic when the attack came on. Chloroform alone did not seem to answer the turn, while treatment by cathartics and opium was too slow and was apt to be followed by several days' feverishness. When the chloroform was used with the opiate, much less of the latter was required to give relief than when the chloroform was omitted, and the patient was much more likely to fall into a tranquil sleep and not require a second dose. It seems that Nussbaum, Claude Bernard and others found that chloroform and opiates produced a much more prolonged narcosis than would result from either alone, while insensibility to pain was also greatly protracted. Rabuteau gave narcein to a dog, after which he chloroformed him to sleep. After waking, the dog remained insensible to pain, and did not fully recover sensation till next day.

* For a full account of this case, by Dr. Marcy, see this JOURNAL for Sept. 24, 1874.

In a severe attack of internal neuralgia, the writer found morphia by the skin with chloral hydrate by the stomach or bowel to work admirably. Even large doses of chloral would not relieve the pain, and, of course, would not produce sleep, while morphia, when given alone, would be required in large doses, to relieve the distress, and would not be followed by sleep. When the two substances were used together, a much smaller dose of each was required to effect relief and procure sleep, while relief from the pain was very much more protracted than when the morphia was not aided by the chloral.

In several instances, the writer has prescribed these medicines in conjunction, and with the happiest effect. In such cases as are rendered wakeful on the use of an opiate, the writer has learned to supplement its anodyne effects by small doses of chloral, in order to secure sleep.

Dr. W. Pichler* found the combination of these two agents most valuable in the treatment of gall-stone colic. In Carlsbad, this disease is very common, and trials of morphia and chloral together proved much more useful than either alone, or any other remedy or combination of remedies. He says that, on inquiry, he found that other doctors had gained a knowledge of the same fact in the treatment of this disease. He therefore commends the combination in gall-stone colic and in the passage of renal calculi and neuralgia. We have not yet had a fair opportunity to test the value of this combination in cases of that form of neuralgia known as angina pectoris. In a severe case of sciatica, the external application of a mixture of one part of chloroform, two parts of oil of turpentine and five or six parts of alcohol, with the internal use of opium and quinine, gave excellent results. In this case, two portions of sulphate of morphia, by hypodermic injection near the most painful part, caused excruciating distress, with swelling and soreness of the parts, as if severely bruised. For many years, the writer's panacea in the treatment of hysterical spasms has been the internal use of a mixture of chloroform and laudanum, after the paroxysms have been relaxed by the inhalation of chloroform, so that the patient could swallow. One good dose of this mixture has usually sufficed to explode the fits, and persons who have been frightfully convulsed have in this way been speedily made "to take up their bed and walk."

The similar action of the opiate and chloral and of the opium and chloroform, somewhat confirms the belief of Dr. Liebreich, that chloral is converted into chloroform in the system, and as such produces its effects.

So far, then, as my own experience goes, I regard chloral a very great addition to our medicines, if for no other purpose than to correct the wakefulness so commonly following the use of opium, and to cause that agent to act in smaller doses, with more prolonged effect and without the feverishness and other evil consequences of its free use.

* Allgemeine Wiener Med. Zeitung, Nov. 18, 1873.

Progress in Medicine.

REPORT ON GENITO-URINARY DISEASES.

By T. B. CURTIS, M.D.

The Action of Mercury, internally administered, upon the Blood.—Dr. Wilbouchewitch, of Moscow (*Archives de Physiologie*, p. 509, 1874), publishes a very interesting article on the alterations of the blood produced by the administration of mercury. His researches were carried on at the Histological Laboratory of the College of France, in Paris, by means of the ingenious apparatus for counting blood corpuscles devised by Malassez and described by him in the *Archives de Physiologie* (1874, p. 32). This method of blood corpuscle numeration is briefly as follows. The blood, sufficiently diluted by the admixture of a stated proportion of artificial serum, is introduced into an artificial capillary made of glass, of which the capacity is accurately known, and which is sufficiently fine to bear a microscopic examination with an object glass capable of defining the blood corpuscles. By means of this apparatus, the number of corpuscles, red and white, contained in a known bulk of diluted blood being ascertained, it is easy to calculate the number of corpuscles contained in the unit of measurement, say a cubic millimetre. The investigations of Malassez have already afforded very valuable contributions to our knowledge of the composition of the blood in man and animals, in health and disease; his method is now being applied by himself and others to the study of the action of drugs, and the article to which we now call attention is one of the first fruits of this application; the results thus obtained are highly interesting, not only as a contribution to our knowledge of physiological therapeutics, but from the point of view of utility in practice. It is always so gratifying to meet with experimental research in therapeutics which agrees with and corroborates the results of empiricism, and admits of practical application, that we propose to expose, with some detail, the conclusions arrived at by the author. His observations were made at the Midi Hospital, upon patients subjected to mercurial treatment. He investigated the state of the blood before, during and after specific treatment, examining in all 168 specimens of syphilitic blood, and every care was taken to avoid causes of error. He first determined the normal figures in healthy subjects taken under conditions similar to those in which his patients were placed; finally, he also studied the action of mercury upon animals, examining the blood before, during and after the administration of the drug. In healthy subjects, the number of blood disks averages about 4,600,000 to the cubic millimetre; it varies in different individuals between four and six millions, but in any one subject the number remains pretty constant, the variation due to meals and to excretion of fluid being only temporary.

In syphilitic subjects examined before the beginning of the specific treatment, the author found a progressive decrease of blood disks, amounting, generally, to more than 200,000 daily. As soon as the mercurial treatment (consisting of bichloride, two-thirds of a grain, or protoiodide, one and two-thirds grains) was instituted, the blood corpuscles began to increase in number at the daily rate of about 80,000

during the first week, and after that at the rate of 120,000 daily. This increase continued during two or three weeks only, and was then succeeded by a retrograde process of daily diminution, which, in about a fortnight, reduced the number of disks to the figure obtained at the beginning of the specific treatment. If the administration of mercury were then suspended, it was found that the destruction of corpuscles ceased, and about a week after the cessation of the mercurial treatment, the blood began to grow richer at the daily rate of about 90,000. As a general rule, the white corpuscles, of which Malassez and Wilbouchewitch find 1 to 600 or 700 disks, underwent variations inverse to those of the red corpuscles.

Thus we see that, before any specific treatment, syphilis causes a rapidly progressing anæmia; as soon as mercury is administered, the blood begins to grow rich in red blood corpuscles; this beneficial action is, however, of short duration, lasting only two or three weeks, and is succeeded by a daily decrease of red blood corpuscles, which is arrested by the cessation of the mercurial treatment. Our author therefore concludes that the administration of mercury *in excessive doses*, or *during too long a period*, gives rise to an anæmic condition; the drug, after having played the part of a hæmatopoietic reconstituent, exerts a destructive action on the blood disks, in consequence of its gradual accumulation in the system; after a temporary cessation of the specific treatment, the mercurial anæmia ceases to progress, and the corpuscles begin again to increase in number. Wilbouchewitch attributes this phenomenon to gradual elimination of the excess of mercury, by which the amount of the drug in the system is restored to the proportion favorable to hæmatopoiesis. This period of the action of mercury appears to be succeeded in turn by a phase in which the syphilitic anæmia sets in anew, and again indicates the necessity of having recourse to the reconstituent action of the specific treatment.

Experiments on rabbits showed that mercury constantly caused a diminution of blood corpuscles, which ceased when the administration of the drug was suspended.

In conclusion, Wilbouchewitch says:—"These experiments suffice to show that the progressive diminution of disks which I found to take place in syphilitic patients when the mercurial treatment had been carried beyond certain limits, was due to the action of the specific treatment. Mercury, given in large doses, begins at once to cause anæmia; if given continuously in small doses, the drug accumulates in the system, and soon acts as if given in excessive doses. The physician must, therefore, make it his aim to use mercury so as to utilize its hæmatopoietic action, and avoid its destructive effects; for this purpose, the information obtained by means of the counting apparatus of Malassez is very valuable."

Guided only by clinical experience, Fournier (*Gazette Hebdomadaire*, March 1, 1872; *La Syphilis chez la Femme*, Paris, 1873) has adopted what he calls the "method of successive treatments," which consists in frequently interrupting the administration of mercury for several weeks or months.

The Calibre of the Normal Urethra.—Otis (*New York Medical Journal*, April, 1874), states that the average urethral calibre equals at least number 30 of the French scale, and that the occurrence of urethræ from 30 to 36 would not prove rare if examinations were made

with suitable instruments; he also relates particulars of cases bearing out these assertions. He has now eight cases recorded of a urethral calibre of 34 (French), two of 36 and one of 40. It is common, he adds, to find a fully developed penis, with a meatus of 20 (French) or less, and on slitting it, to find a 30 or 31 steel sound slipping by its own weight through the urethra and into the bladder. This case, in which the calibre of the urethra proved to be 40 (French), originally presented a meatus contracted to 24. The meatus therefore cannot be taken as a reliable guide in estimating the normal calibre of the canal.

Urethrotomes for Strictures of large Calibre.—Bumstead (*Archives of Dermatology*, New York, Oct. 1, 1874) describes and figures instruments for the internal division of strictures of medium and large calibre. He has hitherto been in the habit of using Maisonneuve's urethrotome, but in some cases he thinks it may be convenient to use an instrument with a voluminous cylindrical shaft, capable of stretching the stricture, thereby facilitating its division. Such instruments as he describes are also, he says, more easy of introduction through wide strictures, especially when complicated by false passage, than are the finer urethrotomes, which are suitable for narrow strictures. He has therefore had made a set of four instruments whose shafts measure 15, 20, 25 and 30 (of the French scale), and which end respectively up to numbers 20, 25, 30 and 38. We must refer the reader to the original article and figures, for the description of the instruments which appear well devised for the object in view. It may be noticed that Bumstead herein agrees with Otis, that it may occasionally be necessary to resort to internal urethrotomy in cases when the canal admits a number 30 shaft.

External Urethrotomy.—Güterbock (*Archives für Klinische Chirurgie*, vol. xvi. 1874) has an interesting paper on the indications and performance of this operation, which he thinks should be resorted to at once in all cases of traumatic injury to the perineal urethra, as well as in many cases of narrow stricture complicated with false passages. He prefers to open the urethra in front of the lesion and incise from before rather than to open it at the apex of the prostate as advised by Simon and Cock. Following the practice of American surgeons, he disapproves of the tied-in catheter, except in cases where the urine is strongly ammoniacal; here the catheter may be tied in till the wound has granulated. Thirteen cases, seen in the wards of Wilms, are related; of these, six proved fatal from secondary hæmorrhage, showing the necessity of careful hæmostasis after this operation. Three days after the operation, it is generally advisable to introduce a large sized instrument, with a view to preventing contraction of the newly made canal; this measure should be repeated every two or three days. In some cases, however, no instrument should be passed through the urethra for several weeks.

Ammoniacal Urine and Urinary Fever.—Professor Gosselin and his interne, A. Robin, have published in the *Archives Générales de Médecine* (May and June, 1874), an elaborate essay on this subject. With a view to determining the causes of the feverish attacks which supervene in consequence of lesions of the urinary organs, they instituted a course of careful chemical researches and of experiments upon animals. Urinary fever has generally been explained by two theories,

neither of which suffices to account for all the phenomena involved in the problem. According to one theory the toxic phenomena are due to secondary alterations of the kidney, occasioning insufficiency of the organ to perform its excretory functions. According to the other, the poisoning of the system is due to resorption of altered urine from the surface of the wound, or from an inflamed and ulcerated mucous membrane. It is, however, an established fact which the authors took as their starting point, that operations on the urinary organs are particularly dangerous when the urine is ammoniacal. This condition of the urine gives rise to local and general disturbance of a most serious nature, consisting of feverish and inflammatory manifestations of a special kind. Our authors were consequently led to institute experiments and researches for the purpose of determining the nature and causation of these toxic phenomena, and of ascertaining the part played in their production by carbonate of ammonia.

The ammoniacal character of altered urine is known to be due to the decomposition of urea, which body, under certain circumstances, and by a mechanism but imperfectly understood, takes two equivalents of water, and becomes carbonate of ammonia. Pasteur and van Tieghem are of the opinion that this chemical reaction only takes place under the influence of certain vegetable ferments belonging to the *torulæ*, which have to be introduced into the urine from without. Many facts, however, militate against this theory. Be this as it may, the production of carbonate of ammonia from decomposed urea is a fact. What are the properties of this salt when absorbed into the system? The authors made many and various experiments upon guinea pigs and rabbits, by means of subcutaneous injections, employing watery solutions of the carbonate, normal urine, carbonate of ammonia dissolved in normal urine, ammoniacal urine, and lastly, carbonate of ammonia dissolved in ammoniacal urine.

1.—Action of carbonate of ammonia dissolved in water (25 centigrammes to 1 gramme):—The results varied according to the doses; when injected in one large dose (exceeding 1 gramme for a rabbit), tetanic convulsions took place, followed by death; among other concomitant phenomena, epistaxis and albuminuria were frequent; moreover, there was always a diminution of temperature amounting to 1°, 2° or 3°, Fahr. The lesions found after death were chiefly intense congestion of nearly all the viscera, including the kidneys: the blood was altered, being brownish in color, with deficient coagulation. If, on the other hand, the solution were injected in small daily repeated doses (50 centigrammes for a rabbit), the poison was well tolerated for two or three weeks, and the disturbances set up, the death of the animal and the appearance after death were all referable to the local inflammatory lesions occasioned by the injections. Thus in small and often repeated doses, carbonate of ammonia produces little or no general disturbance, but occasions destructive local effects; in large single doses it produces general phenomena differing wholly from those characteristic of urinary fever.

2.—Normal urine injected subcutaneously produced only local effects.

3.—The carbonate dissolved in normal urine was found to be actively poisonous to an unexpected degree, considering the results obtained in the two preceding sets of experiments. Injected in quite

small doses, this solution produced general feverish phenomena and intense local inflammation, soon followed by death. These effects were proportionate in intensity to the amount of carbonate of ammonia added to the urine.

4.—Ammoniacal urine derived from a patient with stricture and cystitis, was found to possess still greater poisoning qualities than the preceding solution. Injected in small doses, it occasioned a considerable and rapid rise of temperature, followed by defervescence and death. With the feverish attack following each injection, various other phenomena were noted, as diarrhœa and albuminuria.

5.—Finally, carbonate of ammonia dissolved in ammoniacal urine was found to greatly enhance the poisonous properties of the latter; the feverish attacks were followed by a fall of temperature below the normal degree, and by death. The deleterious effects were still more marked, and more rapid, when the wounds containing the injected fluid were exposed to the air.

From these experiments, our authors derive the following conclusions:

1. Ammoniacal urine rapidly causes fever, and by varying the modes of injection, the different thermic forms of urinary fever may be produced.

2. It is highly poisonous, and its toxic effects increase proportionately to the amount of carbonate of ammonia which it contains.

3. The local lesions experimentally produced explain analogous local lesions observed in man where wounds are in contact with ammoniacal urine.

4. The visceral lesions (congestion, &c.) agree with those found in subjects who have died of urinary fever.

5. The toxic action of ammoniacal urine is enhanced by the access of air.

6. The rapidity with which normal urine, mixed with blood and pus, undergoes decomposition in presence of air, explains how febrile accidents may ensue after operation upon the urinary organs, when the urine was acid before the operation. Gosselin and Robin recognize, however, that carbonate of ammonia is not the only factor in the toxic action of altered urine, inasmuch as the fatal dose of the carbonate, when dissolved in urine, is only from one tenth to one fifth of the fatal dose in watery solution. They see in urinary fever points of analogy with the phenomena of septicæmia. "Urinary fever, thus considered, would be a complex syndrome due to the combined action of chemical and of septic poisons." In this connection we would recall the designation "uriseptic fever," proposed by Dickinson, as a substitute for the many unsatisfactory terms hitherto in use.

The Treatment of Ammoniacal Cystitis by Benzoic Acid.—In a second paper (*Archives Générales de Médecine*, Nov., 1874), Gosselin and Robin advise the use of benzoic acid as a corrective to the ammoniacal state of the urine. The drug may be given dissolved in large quantities of water, or suspended in mucilage. The initial dose is 15 grains, but it should be rapidly increased to 45 or 60 grains, and may even be carried in some cases to 90 grains; at this dose, however, heat and dryness of the fauces begin to be complained of. The action of the acid upon the altered urine is not immediately recognized; but in seven or eight days the ammoniacal character and foetidity gene-

rally disappears, and phosphatic deposits cease to form. The conclusions of this article are as follows :

1. The ammoniacal state of urine causing a large part of the accidents which follow operations on the urinary organs, it is desirable to diminish or suppress it that condition.

2. Benzoic acid, balsams which contain it, and probably other vegetable products (salicine, cinnamic acid, etc.), produce this result.

3. Hippuric acid, which is the product, acts in several ways:—(a) by forming hippurate of ammonia, which is less toxic than carbonate of ammonia.—(b) by retarding the decomposition of the urine, and consequently the production of the carbonate of ammonia.—(c) by preventing the formation of insoluble phosphatic deposits which are the cause of cystitis and the origin of calculus.

4. The administration of benzoic acid is advisable for patients suffering from ammoniaco-purulent cystitis, and particularly for those who are to undergo operations upon the urinary organs.

Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY. C. E. VAUGHAN, M.D., SECRETARY.

THE Society held its semi-annual meeting at North Cambridge, Oct. 14, 1874.

Dr. S. W. DRIVER read the history of four cases of brain disease.

CASE I.—R. L. M., car-driver, aged 28; single. General health and habits good. An otorrhoea of long standing had recently dried up. Left work on Sept. 15, 1870, on account of headache. On 16th, worse headache, and pain in back. On 17th, headache intense, frontal. Was chilly, dull in comprehending, and in expressing himself. Restless at night.

Sept. 18th.—Convulsions at 2, A.M. Seen at once, in second convulsion. Spasmodic action confined to left side. Pupils normal; pulse 80, regular. Convulsions frequent through day. Marked shock at first; rallying later. At night, pulse 80, irregular for first time.

Sept. 19th.—Reaction better. Convulsions less frequent during day. Pulse 85, more irregular. Respiration regular. Slight opisthotonos. Right side beginning to be affected. Left pupil most dilated.

Sept. 20th.—Convulsions every half hour, but ceasing after one drachm of bromide of potassium in divided doses. Consciousness and intelligence returned. Pulse 65; irregular.

Sept. 21st.—One convulsion last night. Has aura, or premonitory symptoms, at the usual times. Pupils dilated. Pulse 60; irregular. Temperature 99°. Tongue put out straight. Conscious. Spoke for first time, and put out hand. Sleepy for first time.

Sept. 22d.—Delirious at times; talkative; feverish. Says head feels heavy. Pulse 75, increasing to 85; pretty regular. Paralysis nearly gone; right side the weaker.

Sept. 23d.—No sleep. Pulse 120, irregular. Excited, suicidal. P.M.—Pulse 120. Micturition involuntary. Uses right side most. Intense pain in head. Opium administered, was followed by quiet and natural sleep.

Sept. 24th.—Awoke conscious and intelligent. No delirium. Pulse 90, irregular. Pupils a little dilated. Urine under control. More sleep. Awoke rational. Told time correctly by watch. Temperature a little higher. Opium not continued.

Sept. 25th.—Slept nearly all night, waking when spoken to. Calm and intelligent. Weak. Skin cool. Febrile reaction in evening.

Sept. 26th.—Sudden change. Respirations 40, irregular. Pulse 120; thready. Can be aroused. Pupils sensitive. Fœtid serous discharge from ear. P.M.—Rallied a little.

Sept. 27th.—Coma. Temperature 99°. Died on thirteenth day.

Autopsy.—Limited meningitis, with small deposit of lymph on anterior convexity of cerebrum, near fissure of Sylvius. Incision at this point opened an abscess of the size of a pullet's egg, with shreds of broken-down tissue hanging from the top. Wall about one fourth of an inch thick. No evidence of extension of the disease from the mastoid cells.

CASE II.—Mrs. K., American, married, aged 51. Health low. Nervous. Had suffered from vertigo. On a hot day, August 8th, went out hurriedly, on account of an alarm of fire in neighborhood. Said her head was dizzy. Seen by Dr. Driver in ten minutes. Pale, cold. Head thrown back, gasping once in ten or fifteen seconds. Jaw moving with respiration. Pupils contracted. Heart sounds not to be made out. Pulse 130 to 140, irregular, thready. Deglutition very difficult. Thought right pupil did not respond to irritation as readily as left. Half an hour later, at her house, respiration 40, pulse 130; cold. Had moved all the limbs, and left bed and passed urine. Catheter used from this time. Lying on right side. Right lid perhaps a little drooping. 11, P.M.—Lids same. Respiration and pulse quicker.

Aug. 9th, 8, A.M.—Respiration 60. Pulse 160. Bluish in face and under nails. Cold. Right lid paralyzed. Right pupil dilated and insensible. On compressing lips, blowing from right corner. Worse during day. Used external heat, beef-tea and brandy enemata.

Aug. 10th, 1, A.M.—Reaction. Respiration 40; pulse 132. Right pupil responding slightly. Warm. Took a little nourishment.

Aug. 11th.—Respiration 32. Pulse 120. Reaction better.

Aug. 12th.—Respiration 24, pulse 114. Turned head when called, and reached for objects. Right pupil responding. Paralysis of lid. No muscular paralysis below face and muscles of deglutition, excepting that urine flowed slowly from catheter.

Aug. 13th.—Failed and died exhausted at 2 A.M. No murmur found in heart, at any time, or physical signs in lungs. During first thirty-six hours, heart sounds could not be made out. During first twelve hours, action of heart and lungs most affected; as paralysis developed, their action became quicker.

Autopsy.—Twenty-four hours after death. Calvarium thin; small quantity of coagulated blood in longitudinal sinus. Dura mater healthy. Pia mater irregularly discolored over left convexity, owing to blood in meshes of arachnoid; pale over right side. Coagulated blood in one of the larger arachnoidal veins, over posterior part of left hemisphere. Base healthy. Inferior lateral vein on left side filled with thrombus, dark, hard; evidently ante-mortem; extending into lateral sinus. Brain substance firm. In grey matter in anterior part of base of left hemisphere, also in that lying beneath left corpus striatum, extensive punctated hæmorrhage.

In pericardium, a moderate amount of fluid. Wall of right ventricle of heart, thinner than normal. In left ventricle several soft, flattened grey masses, irregularly granular on surface. The larger ones contained cavities with smooth walls, with moderate amount of yellow, viscid, puriform fluid. Projections from these passed among columnæ carneæ. Hypostatic engorgement of lower part of left lung. Upper part of right, œdematous.

CASE III.—A. M. H., colored, aged 50. In good circumstances. Physique perfect. Seen Aug. 14th, with inflammation of middle ear; a perforation of tympanum; suffering. Went under care of specialists.

Seen again, Nov. 22d. Severe pain in ear relieved by subcutaneous injections of morphia. Anæmia, anorexia, low spirits.

Nov. 24th.—Better. Tenderness over mastoid. Sent to specialist.

Nov. 26th.—Remarkably well and in good spirits.

Nov. 27th.—3 A.M., vomited. Seen at 9. Pulse 60, regular. Respiration regular; tongue coated; nausea; no pain. Free discharge from ear.

Nov. 28th.—Better, but weak. Some pain in evening. Called in night; mad with pain in head. Feet cold. Pulse 60. Injected one-fourth of a grain of morphia subcutaneously. Slept.

Nov. 30th.—Dull pain when not under influence of opium. Pulse 60, rising. Disposed to be chilly. Dull.

Dec. 1st.—Not as well. Feet warm; sprawled out of bed. In night, a little wandering and twitching. Pulse 70. Bromides and subcutaneous injection of morphia, *pro re natâ*.

Dec. 2d.—Dull. Less twitching. Pulse 70, and quickened by rising. Could stand, unsteadily. Twitching increased. Right foot kicked out of bed. Delirious.

Dec. 3d.—A.M., mind clear, but misused words. Could see well, *at distance*. Pulse 76, regular. Right leg weak. Evening, pulse 100, irregular for first time.

Dec. 4th.—Seen by Dr. Wyman. Pulse 100, lying; 120, sitting; irregular. Sharp twitching. Kicking with right leg. Delirium. Could not stand. Less otorrhœa. Diagnosis: inflammation at base of brain; probably meningitis.

Dec. 5th.—Worse. Loss of sight. Soon, head was fixed to left, and eyes to right. Used left hand. Pulse 120, rising. Recognized no one.

Dec. 6th.—2 A.M. Pulse 120, rising to 160. Respiration 50, increasing. Died at 9 A.M.

Autopsy—Twenty-four hours after death, showed general meningitis. Deposit of lymph along course of vessels, extensively toward base; primarily in sheaths. Over petrous portion of left temporal bone, abscess, from carious perforation from mastoid cells, backward and upward.

CASE IV.—V. S. S., American, aged 55. In good circumstances. Pleuro-pneumonia dating from a chill on January 23, 1874. Lung cleared well at top and middle. On 24th, pulse and temperature rose again, and signs of pleuritic effusion appeared, with infiltration of lung.

Feb. 3d.—Moderate muco-purulent expectoration began, increasing on 4th and 5th to a pint and a half in twenty-four hours. Signs improved; no cavity found.

On the 12th, patient began to flag.

Feb. 13th.—Chill twice, and vomiting, which continued until 18th; pulse rising to 134.

Feb. 19th.—Waking from sleep, symptoms of paralysis of right side appeared. Seen at 10 A.M. Mouth drawn to left; speech thick; tongue put out straight; right hand numb, and tactile sensation diminished; pupils alike. Mind clear, but sentences confused. Often used she for I, &c., and sometimes entirely irrelevant words. Pulse 120, rising. High toned fiddlestring murmur with first sound of heart, most distinct over aortic valves, and transmitted to top of sternum.

3 P.M. Worse. Sensible, but unable to pronounce more than the first words of a sentence.

9 P.M. Seen by Dr. Wyman. Pulse 156. Murmur, blowing and heard over larger space; up carotids and down abdominal aorta. Right hand and leg motionless. Right thumb turned in; wrist dropped.

Feb. 20th.—Rallied a little, but failed, and died on morning of 22d.

Autopsy.—By Dr. Fitz. His diagnostic summing up is as follows:—

Acute pachy-meningitis, and on left side, probably embolic. Old adhesive pleurisy, with recent circumscribed pleurisy. Hypostatic (desquamative) pneumonia. Enlarged spleen. Embolic nephritis. Fibromyomata, multiple, of uterus. Fatty degeneration of heart, with acute vegetative ulceration; aortic endocarditis.

CARDIAC DULNESS, ITS EXTENT AND SIGNIFICANCE.—From the formation and position of the heart, it is obvious that, though we can and may percuss out the whole of the cardiac dulness, this is quite unnecessary; it is only of importance to ascertain its greatest extent of dulness vertically and transversely. Increase of vertical dulness rarely indicates any alteration in the size of the heart itself, but is usually either due to hepatic enlargement, readily ascertained by an extension of these exploratory methods to the liver itself, or to pericardiac effusion—the former dulness, as a rule, extending below the sixth rib, the latter above the third; while a simple change of position of the heart, which may arise from various causes, is indicated by a transference of the normal dulness upwards or downwards, without any change in extent. The apex-beat, except in certain abnormal conditions, is, from the formation of the heart, the part which extends farthest to the left, and being, as a rule, perceptible to the touch, only requires to be percussed out in those exceptional circumstances where the apex beats beneath a rib, and not in an interspace. The right auricle is, of course, that part of the heart which extends farthest to the right, and being extremely dilatable, and readily influenced by any obstacle to the onward flow of blood, transverse dulness about the level of the fourth rib comes to be an important indication of some obstacle to that onward flow, and therefore of an enlargement of the heart, chiefly in its auricular region. These, therefore, are the chief points in regard to which we look to important information from the percussion of the cardiac dulness:—Increase of dulness above the third rib indicates, as a rule, pericardiac effusion. Increase of the transverse dulness at the level of the fourth rib indicates obstruction to the circulation. If the apex-beat be displaced to the left and downwards, the obstruction is probably aortic, and has primarily influenced the left ventricle; if the apex-beat be not displaced downwards, the obstruction is either mitral or pulmonary in its origin.—“On Diagnosis of Diseases of the Heart,” by GEO. W. BALFOUR, M.D.—*Edinburgh Medical Journal*, June, 1874.

Boston Medical and Surgical Journal.

BOSTON : THURSDAY, DECEMBER 31, 1874.

WITH the issue of the present number, the connection of the undersigned with the BOSTON MEDICAL AND SURGICAL JOURNAL ceases. The announcement of the sale and transfer of the work to other hands has already been made, and the present publishers congratulate its readers and patrons that it passes over to those who are so well qualified not only to maintain its long-established character and reputation, but to raise them still higher. They also take this opportunity to express their sincere thanks to the medical gentlemen of this city, still living, who from time to time, with small pecuniary compensation, have occupied the position of Editor of the JOURNAL, and whose labors have mainly been instrumental in giving to it character and respectability. Among the list of the deceased who have filled this important post, it is interesting to find the honored name of the grandfather of the two by whom it is now so worthily occupied. The present Editorial managers are deserving of especial thanks, not only for their own labors, but for expenses incurred in securing the labors of others.

The connection of the Publishers with the subscribers to the JOURNAL is one which has, in many instances, been of long continuance, and will remain indissolubly associated with many pleasant and interesting remembrances. An agreeable intercourse with many brother publishers, in the way of exchanges, is also now severed. Some of the periodicals thus received have come to the JOURNAL office many years, and a vacancy will be felt on their withdrawal.

The senior partner has been connected with the JOURNAL ever since it assumed its present shape and name, in 1823 ; and, previous to that, he was also engaged in printing the *Medical Intelligencer*, from its first issue, under the management of Dr. J. V. C. Smith, in 1823. Though changes have taken place in the work in this long course of years, it has always maintained the characteristic with which it started, that of a *weekly Medical Journal*—then an entire novelty in this country ; and its regular issue during these more than twenty-five hundred weeks has never been interrupted. It is gratifying now to realize that its frequent and continuous visits have been prized by its readers, and also that its general management has been such as to maintain its existence for a period far beyond the average age of medical periodicals, and with scarcely a rival in New England during the whole time.

Again commending the new managers and the present subscribers of the JOURNAL to the favorable regards of each other, and hoping their mutual intercourse may be as pleasant and lasting as that which now comes to a close, the undersigned take their leave of the work as its proprietors and publishers.

DAVID CLAPP & SON.

THE Editors feel that it is but a slight mark of their respect to the members of the firm that so long has published this JOURNAL, to offer

them the leading place in the last number that comes from their press. The farewell will be read with interest wherever the JOURNAL is known. The profession, not only of Boston and New England, but of the entire country, is greatly indebted to the publishers, and particularly to the senior partner, for having maintained a good medical journal for nearly half a century. Those of experience in such matters know how difficult, thankless and of little profit the labor must have been. The only reward is the conviction that the work has been neither fruitless nor unappreciated. Indeed, it is no small triumph to have seen the JOURNAL maintain its position among the very first, though in competition with others backed by the means and influence of some of the greatest publishing houses in America. It is thought that the time has come when the JOURNAL should profit by similar advantages; but whatever success may be in store for it, neither the public nor the Editors will forget that the foundation was laid by those who to-day take their leave.

We regret exceedingly that we are obliged, for want of room, to postpone to another occasion such extended notice of the recent communication made to the City Council by the Board of Health, touching the matter of the city sewerage, as the importance of the communication demands. We shall embrace an early opportunity, however, to notice it at length, and meanwhile commend it to the thoughtful attention of all who are interested in the sanitary welfare of the city.

PERNICIOUS PROGRESSIVE ANÆMIA.—Under this title, states the *Medical Times and Gazette*, Nov. 21, 1874, Dr. Biermer, of Zurich, has described an affection which differs from ordinary simple anæmia in a marked manner, and which seems to be a disease *sui generis*. In five years, he has met with fifteen cases of it in patients varying from eighteen to fifty-two years of age; the majority being women. It frequently followed chronic diarrhœa, and child-bearing seemed especially to predispose to it. The symptoms were extreme pallor, a swollen look of the skin of the hands, feet and face, weakness, giddiness and palpitation of the heart, loss of appetite and a feeling of pressure in the epigastrium. Transient diarrhœa and attacks of feverishness, without the fever assuming any particular type, also occurred. Marked anæmic murmurs were sometimes present, but no organic disease of the heart was ever detected *post mortem*. With all the symptoms of failing health, no actual diminution of the fat covering the body could be made out. Ecchymoses in the retina, small petechiæ under the skin, and, at times, hæmorrhage from the nose and kidneys took place. Transient paralyses were probably due to small hæmorrhages into the brain-substance. Towards the end of life, dropsy sometimes set in and delirium also occurred. The course of the disease was chronic and the termination fatal. The necropsy invariably showed a partial fatty degeneration of the papillary muscles of the heart, and fatty degeneration of the small bloodvessels of various organs. No treatment has as yet been of any avail. Biermer's observations have been confirmed by Professor Immermann, of Basle, who insists on certain diagnostic points which distinguish the affection from diseases in which poverty of the blood is a prominent feature. It differs from chlorosis in its steady and

uninterrupted development, and from marasmus of other kinds in the retention of the fat which covers the body. It has a superficial resemblance to albuminuria, but in pernicious anæmia the urine either contains no albumen or only a trace. The absence of enlargement of the spleen and lymphatic glands separates it from leucocythæmia, and the absence of pigmentation of the skin distinguishes it from Addison's disease. From the fact that all the early cases which were observed occurred in the neighborhood of Basle and Zurich, it was assumed that there must be some local cause for the affection, but of late, cases have been observed elsewhere.

NEUROMATA CURED BY SECTION OF A NERVE-TRUNK.—Professor Kosinski, of Warsaw, has cured a case of multiple neuromata by division of a nerve-trunk.

The patient, aged 30 years, presented himself on account of painful, knotty tumors, which were small and painless when he first noticed them, but which afterwards became increased in size and painful while he was performing long military marches. The tumors were on the upper and outer surfaces of the thigh and over part of the buttock; they were round or oval in shape, and varying in size from a pin's head to a hazel-nut. To determine their nature, one of the most painful was removed, and a microscopic examination showed it to consist of gray nerve-fibres mixed with fibrous tissue, indicating the probable origin in the cutaneous extremity of a nerve, obviously, from their situation, the small sciatic and external cutaneous.

After trying all sorts of medication without success, Professor Kosinski determined to excise a piece of the nerve, with the view of rendering the tumors painless, but without any expectation of diminishing their size. By an oblique incision, almost in the direction of the gluteal fold, the small sciatic nerve was reached, and a portion of it, an inch long, was removed as far as possible under the edge of the *gluteus maximus*. The immediate effect of the operation was the loss of sensibility in the tumors themselves, as well as in the whole region occupied by them. A few, however, on the anterior and outer parts of the thigh and in the sciatic region had their sensibility only partially destroyed. Whilst the wound was granulating, they began to diminish in size, so that at the end of a few weeks the larger ones had been reduced by a half and the smaller ones had almost completely disappeared. At the end of four months, it was ascertained that the process of disappearance was still going on, and that those which remained had become completely painless.—*Medical Times and Gazette*, Nov. 24, 1874.

APHORISMS FROM THE *Medicinisch-Chirurgische Rundschau*.—*Whooping Cough*. "Whenever I observe a patient affected with a catarrh, accompanied by fifteen or twenty paroxysms of coughing in a minute, and particularly when this catarrh continues from four, six, eight to ten days, being attended with severe fever, I regard these symptoms as sufficient to justify the diagnosis of a specific catarrh (whooping cough).

"The initiatory fever of a bronchial catarrh seldom continues longer than forty-eight to seventy-two hours, except when capillary bronchitis is superadded. In children affected with whooping cough, the fever usually lasts, on the contrary, from seven to fourteen days.

"Whenever, in the course of a whooping cough, the number of paroxysms exceeds forty in twenty-four hours, the condition of the patient is to be regarded as critical. If it exceeds sixty, the physician is justified in predicting an unfavorable termination to the disease.

"Whooping cough lasts, as a rule, between fifty and sixty days; in exceptional cases, eight days only or less. On the other hand, it is frequently prolonged to a period of several months, and even to an entire year.

"In the case of pregnant women suffering from whooping cough, an abortion appears to be induced in rare instances only.

"The longer and severer the last paroxysm in whooping cough, the sooner the next attack.

"Whooping cough, above all other bronchial affections, has a tendency to develop latent tuberculosis; and, for this reason, in the case of children belonging to tuberculous families, is to be regarded as a very dangerous disease.—TROUSSEAU, from the German Translation of Culman.

RECOVERY FROM MELANCHOLIA AFTER FOUR YEARS' REFUSAL OF FOOD.—A gentleman, aged forty, after increasing symptoms of mental depression, fell into a profound state of melancholia in June, 1870, and was sent to a private asylum, where he lay for four years in a complete state of inertness, rarely using a muscle voluntarily, except to clench his jaws when the attempt was made to feed him, and to close his eyelids and turn up the globes, when efforts were made to examine his eyes. During this entire period he would not speak or eat, and was forcibly fed, dressed and cared for; and although life was sustained, he became very much reduced. In May last, he suddenly woke up, as it were, into social life, spoke, ate, and although scarcely able to move at first, rapidly regained health, weight, and complete mental soundness. Asked to explain his behavior, he said that he was under a profound sense of personal degradation. He felt that he was growing into a kind of monster, unfit to live or even to be seen; that the birds on the trees were mocking at him, and that he was surrounded by devils.—*British Medical Journal*, Nov. 28, 1874.

It is proposed, at the University of Cambridge, to institute an examination specially designed for those intending to hold public appointments as officers of health. The following are recommended as subjects of examination:—

"1. Physics and chemistry; the principles of chemistry and methods of analysis, with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat, and the principles of pneumatics, hydrostatics and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general. 2. Laws relating to public health. 3. Sanitary statistics. 4. Origin, propagation, pathology and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and disposal of sewage and refuse; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season and climate."—*British Medical Journal*, Dec. 5.

THE ADMINISTRATION OF APERIENTS AFTER OPERATIONS ON THE RECTUM.—In operations on the rectum, the practice hitherto has been to confine the bowels, by means of opium and a carefully restricted diet, for at least a week. To this practice may often be ascribed the failure to obtain adhesion by first intention, or breaking down of the adhesions the very first time the bowels are relieved. It has been recently proved that a regular daily evacuation of the bowels, by means of small doses of castor oil or some gentle saline aperient, favors the healing process, lessens the tendency to unhealthy inflammation and consequent non-union of the parts, and obviates the risk of the adhesions breaking down by the passage of the hardened mass of feces that had been allowed to accumulate in the rectum, or by the distension of the bowel by an enema administered by a careless nurse.—*British Medical Journal*, Dec. 5.

FREQUENCY OF RESPIRATION IN CHILDREN.—In new-born children, the frequency of respiration ranges from 23 to 44 a minute; between the ages of 1 and 4 it varies from 20 to 36, and in older children from 20 to 28.—Dr. A. MONTI, *Obst. Jahrb. f. Päd.*

Correspondence.

THE POMEROY CASE.

MESSRS. EDITORS,—Now the case is decided, I wish to make a few comments on *Commonwealth vs. Jesse H. Pomeroy*. I have not seen this boy, and have little sympathy, sentimental or otherwise, with so debased and defective a specimen of humanity. It is of little consequence, in one sense, whether he is hung at once in deference to public opinion, as expressed in the daily and medical press of Boston, or confined for life in a prison or hospital. It is of much importance that such exceptional beings should be properly classified.

The physician asks himself, in view of the well-known catalogue of this boy's atrocities, have we a morbid specimen, a case of disease before us, or do all these deeds of fiendish aspect merely show us a phase of healthy, normal boy nature? The press speak of the actor as a fiend, a brute, a moral monster rather than a human being, but inconsistently term the acts of such an actor crimes. In the last JOURNAL, you say that the boy's tastes were morbid, that he had a taste for cruelty, exaggerated in degree, but not unnatural in kind; that the temptation to commit the crimes was great (growing out of his morbid taste for cruelty), that his power to resist was feeble (defective will power), but that *there is no reason to doubt that it was sufficient*. That is just the question. Was it sufficient? Dr. Tyler and Dr. Walker, after personal examination of the prisoner, thought there was reason to doubt, and that the prisoner should have the benefit of that doubt. It was Dr. Walker, by the way, who suggested the possibility of masked epilepsy, and not Dr. Tyler, as you have it. Dr. Choate, although he believed the prisoner sane, thought he had a peculiar proneness to certain forms of sin, with weakness to resist, and that his peculiarities were moral and not intellectual.

It is conceded by all, then, that moral deficiency, weakness of will and fair intellect are the characteristics of this boy's mind. The evidence also went to show that his peculiarities were congenital rather than acquired, shown in early childhood, but developing with horrible force and effect at puberty. This condition is not a very uncommon one, and is known among alienists as *moral idiocy*, in distinction from intellectual deficiency. I made brief mention of three cases of this kind, in the JOURNAL for Sept. 24, 1868, and have met with several since, though none where the results were as startling as in the present case. The collateral evidence, aside from certain specific acts, is sometimes strong and sometimes weak; but with or without these side lights, it is not difficult to distinguish a moral idiot from the ordinary "bad boy." To show this difference plainly and convincingly is quite another thing.

Exception is quite generally taken to regarding the atrocity of the offence as an evidence of insanity or moral deficiency. Why not consider the nature of the act in question, and, if you choose, that alone, as proving or disproving insanity? How do physicians diagnosticate chorea, for instance? They see certain motiveless, incoördinate acts, largely at variance with ordinary muscular movements. The patient says he cannot control them. A patient talks incoherently, and we call him delirious. He persists in styling himself Emperor of China, for instance, and we call him insane. He appears depressed, and says he has suicidal or homicidal impulses. We call him insane and dangerous, and send him to an asylum. We call a boy, who from birth has been unable to talk, or to learn to read, or to exercise any useful employment, an idiot. If he kills a comrade, we do not hang him, because he is intellectually deficient.

But boys are born morally deficient, while developing a fair amount of intellectual power. They are incapable of receiving and assimilating ideas touching their moral relations. Their feelings are abnormal and perverted,

selfish indifference taking the place of natural affections; and cruelty, with other bad passions, having unrestrained sway, in spite of good training, and as the direct result of congenital moral deficiency. This condition is recognized by all alienists in cases where popular feeling can have no influence. The evidence is the same in this as in other diseases. We observe a moral deficiency and incapability for the assimilation of moral ideas, with vicious, perverse, cruel and violent conduct, acts of crime, such as theft, incendiarism, torture and murder, more or less motiveless in the ordinary sense, and plainly growing out of natural defect rather than an ordinary yielding to temptation. This character is evident at an early age, and is especially demonstrative at puberty, coming under more or less restraint as the patient arrives at adult age. No punishment or reward, no instruction or restraint of religious teaching has any effect. The patient, like Pomeroy, simply says, "I couldn't help it," or "I had to do it." The greater the number and atrocity of his acts, the earlier their appearance, the feebler the apparent motive, the more readily do we concede a condition of partial or more perfect moral idiocy.

We know a moral monster just as we do a physical one, when we see him; only men are not trained to trust their observation of mental phenomena as they do their visual organs. The difficulty in classifying the Pomeroy case is, not that experts have a theory of insanity which they cannot sustain, but that the public and the jury have a theory that moral atrocity indicates wilful depravity in all cases, when unaccompanied by intellectual defect or disease. They say, by their verdict, this boy *knew* what he was doing, and that it was wrong; but did he *feel* the outrageous nature of his conduct at the time, and could he at the time restrain his horrible impulses? When we merely read of his tortures we shudder, and we unconsciously assume in him the same standard of feeling. But it was the congenital absence, it may be, of this moral sense which we possess that enabled him deliberately to tie up little boys and girls and to strip and torture them, in two instances, to death. It is evident he felt no compunctions when he danced round one of his mangled victims, forcing him to repeat the Lord's prayer, mingled with obscenity; and it is evident that he has felt no remorse since.

If society chooses to consider such conduct as the outcome of a sound mind, under modern educational influences, merely a fair specimen of what we can do hereabout in the natural depravity line, so much the worse for society. If society persists in hanging this premium "bad boy," instead of trying the experiment of cultivating a moral sense in such barren soil, so much the worse for the boy.

T. W. FISHER.

Boston, Dec. 24, 1874.

AMERICAN MEDICAL ASSOCIATION.—A CORRECTION.

MESSRS. EDITORS,—Will you permit an old Fellow to "kindly correct" an error, into which your correspondent and yourselves inadvertently seem to have fallen, in regard to "the power to choose" delegates to the American Medical Association?

When the Massachusetts Medical Society was requested to join in the establishment of that Association, it gave up the whole matter at once to its *Councillors*. After investigation, and an assurance that the Association "did not assume any power of coercion," the *Councillors* consented to send delegates. The delegates were then, and for years afterwards, chosen by the *Councillors*. When it became difficult and burdensome to make the selection, the *Councillors*, on motion of Dr. Henry I. Bowditch, voted to "authorize the District Societies to appoint delegates," to be "entitled delegates of the Massachusetts Medical Society," not of the District Societies. There was nothing whatever "advisory" in all this.

The "power to choose," thus derived directly from the *Councillors*, has never been revoked, though suspended for *one year only*—1871; and District

Societies can now, as in years past, choose delegates for the coming year, if they think it worth while.

More might be added, but enough has been advanced to show where the power lies. The purpose, duties, limitations and privileges of District Societies are clearly set forth in the Charter (Digest, articles xii. to xv.) now in the hands of every Fellow of the society. COUNCILLOR.

Medical Miscellany.

AT THE LAST MEETING of the Middlesex South District Medical Society, resolutions were passed in memory of the late Prof. Jeffries Wyman and Drs. Anson P. Hooker and Theodore P. Robinson.

DR. E. WARREN SAWYER, a graduate of the Harvard Medical School, has obtained the position of Lecturer on Obstetrics at the Rush Medical College, Chicago, after a competitive examination with thirteen others. Each candidate was called on to deliver an extemporaneous lecture on a given subject before the faculty and students.

BEDBUGS are said to be most readily destroyed by *nux vomica* in the form of the tincture, combined with liquor ammoniæ, which mixture is to be freely applied to the joints and cracks of the bedstead. It is equally efficacious against cockroaches, water-bugs and other vermin, and if applied to the harness of horses, the animals will be no longer annoyed by flies.—*Apotheker-Zeitung*.

THE EDITOR of *The Richmond and Louisville Medical Journal* and the *American Medical Weekly* proposes to give to each subscriber to the first journal, twelve handsomely engraved portraits of distinguished European and American physicians, and to the subscribers to the *Weekly*, one of these portraits in each of the two volumes for 1875. We are glad that the affairs of our esteemed contemporaries are in such a flourishing condition as this should imply.

PASSAGE OF SCISSORS THROUGH THE ABDOMINAL WALLS.—At a recent meeting of the New York Pathological Society, Dr. H. B. Sands presented a pair of scissors, five inches long, which had been swallowed by a woman affected with suicidal mania. The scissors had subsequently appeared at the abdominal wall, just above the umbilicus and to the right of the median line, and, by unfastening the rivet, first one blade and then the other was successfully removed.—*New York Medical Journal*.

CATHETER IMPACTED IN THE FEMALE PELVIS.—At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Barwell reported the case of a female whom he found suffering from a large abscess over the hip, with a sinus in front of the anus, all of which seemed to have originated in an instrumental abortion produced upon her twenty months previous. A subsequent examination, made after the abscess had been evacuated, revealed the presence of a gum-elastic catheter, lying up between the uterus and bowel. A small opening was detected communicating with the rectum, through which the catheter was forced, and then drawn out at the rectum.—*Lyon Medical*.

NOVEL USE OF THE ASPIRATOR.—Dr. A. Bell, of Newcastle-upon-Tyne, has recently employed the aspirator successfully in a case of retroversion of the gravid uterus. The patient was between four and five months advanced, had suffered extremely, and was greatly prostrated. The source of her trouble having been ascertained, a careful and determined effort was made to replace the uterus, but without success. It then occurred to Dr. Bell to draw off the liquor amnii through the rectum by the aspirator. No unfavorable symptoms followed the operation; upon the next day uterine action set in, and the woman was safely delivered.—*British Medical Journal*, December 5.

TREATMENT OF PERSISTENT NEURALGIA.—Amongst the many remedies that have been tried for rebellious neuralgias, M. Desnos, of the Hôpital de la Pitié, recommends the following combination as being frequently successful; and even in cases where it has failed, if tried again after the lapse of a short time, it may succeed. He first applies over the painful spot three or four mustard poultices, and then rubs into the reddened surface a liniment composed of—

Oil of hyoscyanum,	3iss.;	
Laudanum,	5ss.;	
Chloroform,	5iss.	M.

—*Journal de Médecine; The Practitioner.*

BOOKS AND PAMPHLETS RECEIVED.

The Medico-Chirurgical Tariffs used by the Shropshire Ethical Branch of the British Medical Association. 1874. Pp. 12.

Free Phosphorus in Medicine; with special Reference to its Use in Neuralgia. By J. Ashburton Thompson. London: H. K. Lewis. 1874. Pp. 275.

Contributions to the Annals of Medical Progress and Medical Education in the United States, before and during the War of Independence. By Joseph M. Toner, M.D. Washington: Government Printing Office. 1874. Pp. 118.

The seventy-eighth Annual Report of the Boston Dispensary. 1874. Pp. 26.

Report of the Health Officer of San Francisco. Henry Gibbons, Jr., M.D. 1874. Pp. 71.

Catalogue of the Specimens in the Pathological Museum of the Philadelphia Hospital. Prepared by James Tyson, M.D., assisted by R. M. Bertolet, M.D. Philadelphia. 1874. Pp. 21.

Petition of the American Medical Association in behalf of the Medical Corps of the Army. Washington, 1874. Pp. 24.

An Address delivered before the McDowell Medical Society of Kentucky, Nov. 4, 1874. By Wm. T. Briggs, M.D., of Nashville. Pp. 15.

Annual Report of the Surgeon-General of the United States Army. 1874. Pp. 21.

Clinical Ureametry. By Henry G. Piffard, M.D. (From the New York Medical Journal, December, 1874.) New York. Pp. 7.

MORTALITY IN MASSACHUSETTS.—Deaths in thirteen Cities and Towns for the week ending December 19, 1874.

Boston, 170; Worcester, 13; Lowell, 18; Milford, 1; Chelsea, 3; Cambridge, 14; Salem, 7; Lawrence, 8; Springfield, 8; Lynn, 8; Taunton, 4; Newburyport, 4; Fall River, 12. Total, 270.

Prevalent Diseases.—Consumption, 51; pneumonia, 27; measles, 15; croup, 9; diphtheria, 4. Boston reports 8 deaths from croup and 4 from diphtheria.

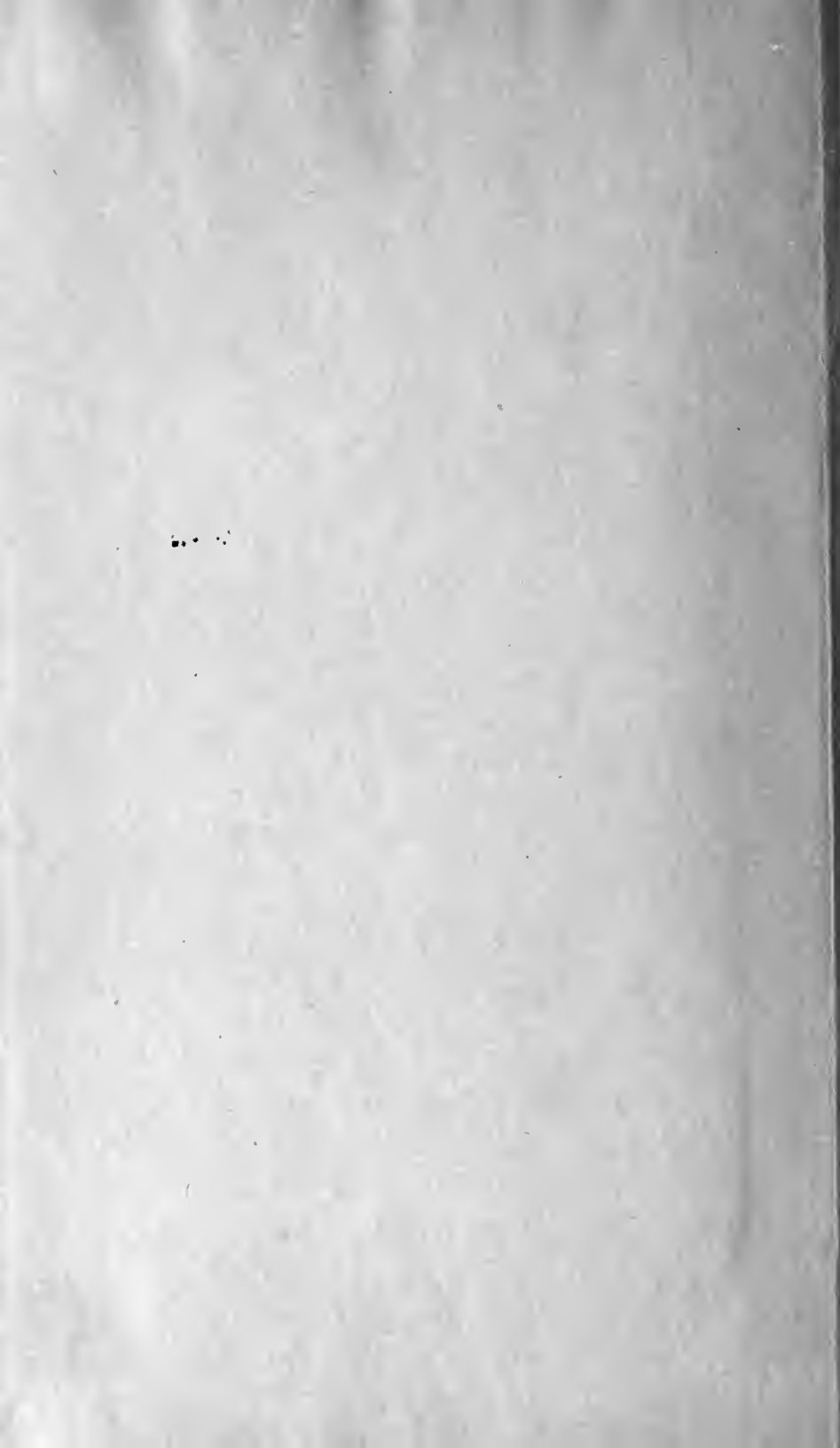
CHAS. F. FOLSOM, M.D.

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 27, 1874. Males, 77; females, 81. Accident, 2; apoplexy, 5; inflammation of the bowels, 1; bronchitis, 8; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 4; cancer, 5; cholera infantum, 1; consumption, 24; convulsions, 2; croup, 3; debility, 1; diarrhoea, 1; dropsy, 1; dropsy of the brain, 2; dysentery, 1; diphtheria, 5; epilepsy, 1; erysipelas, 1; scarlet fever, 8; typhoid fever, 4; gangrene, 2; gastritis, 3; disease of the heart, 7; intussusception, 1; insanity, 1; disease of the kidneys, 5; diseases of the liver, 2; congestion of the lungs, 2; inflammation of the lungs, 16; marasmus, 5; measles, 3; old age, 7; paralysis, 2; pleurisy, 2; premature birth, 6; peritonitis, 2; puerperal disease, 3; suicide, 2; syphilis, 1; tumor, 1; whooping cough, 1; unknown, 2.

Under 5 years of age, 57; between 5 and 20 years, 14; between 20 and 40 years, 34; between 40 and 60 years, 19; over 60 years, 34. Born in the United States, 109; Ireland 36; other places, 13.





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